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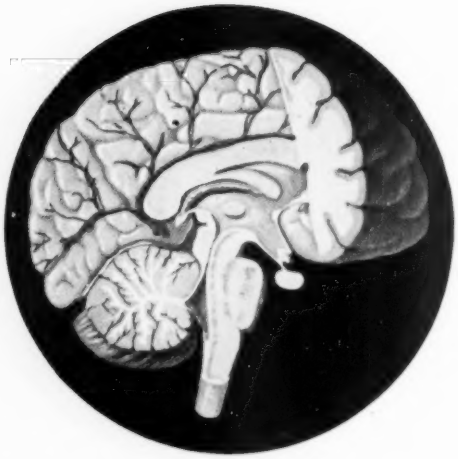

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THE AMERICAN JOURNAL OF PSYCHIATRY

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2. Hess, W. R. Diencephalon. New York: Grune & Stratton, 1954.

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AUGUST **CONTENTS** 1957

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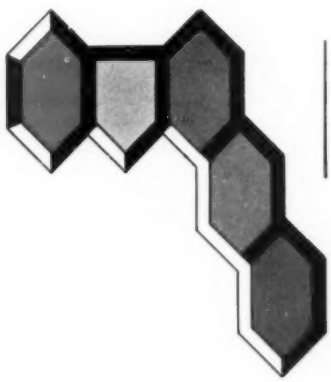

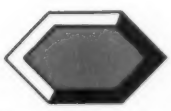

References: 1. Communication to Abbott Laboratories 1956. 2. Moyer, J. H. et al; Deserpidine for the Treatment of Hypertension, Southern Medical J., 50:499, April, 1957.

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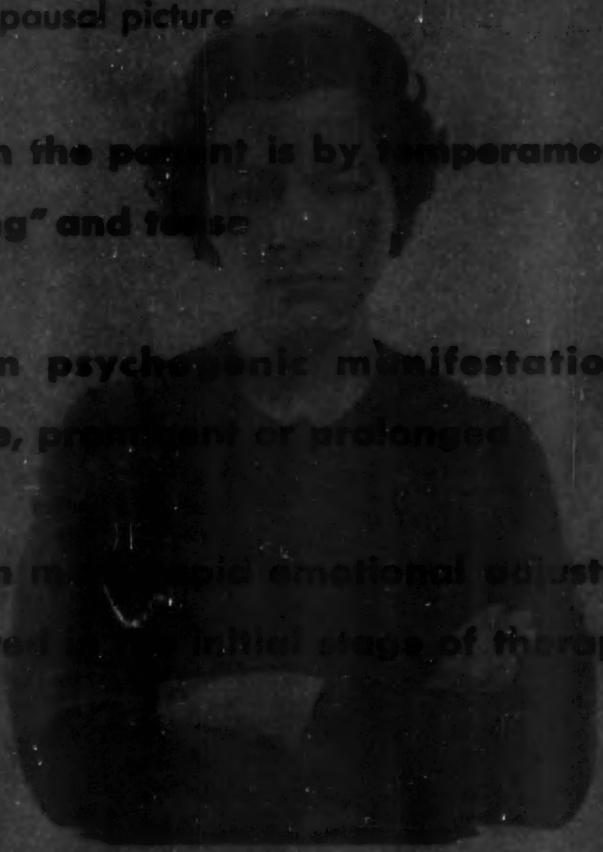

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1. Figurelli, F.A.: Indust. Med. & Surg. 25:376 (Aug.) 1956.

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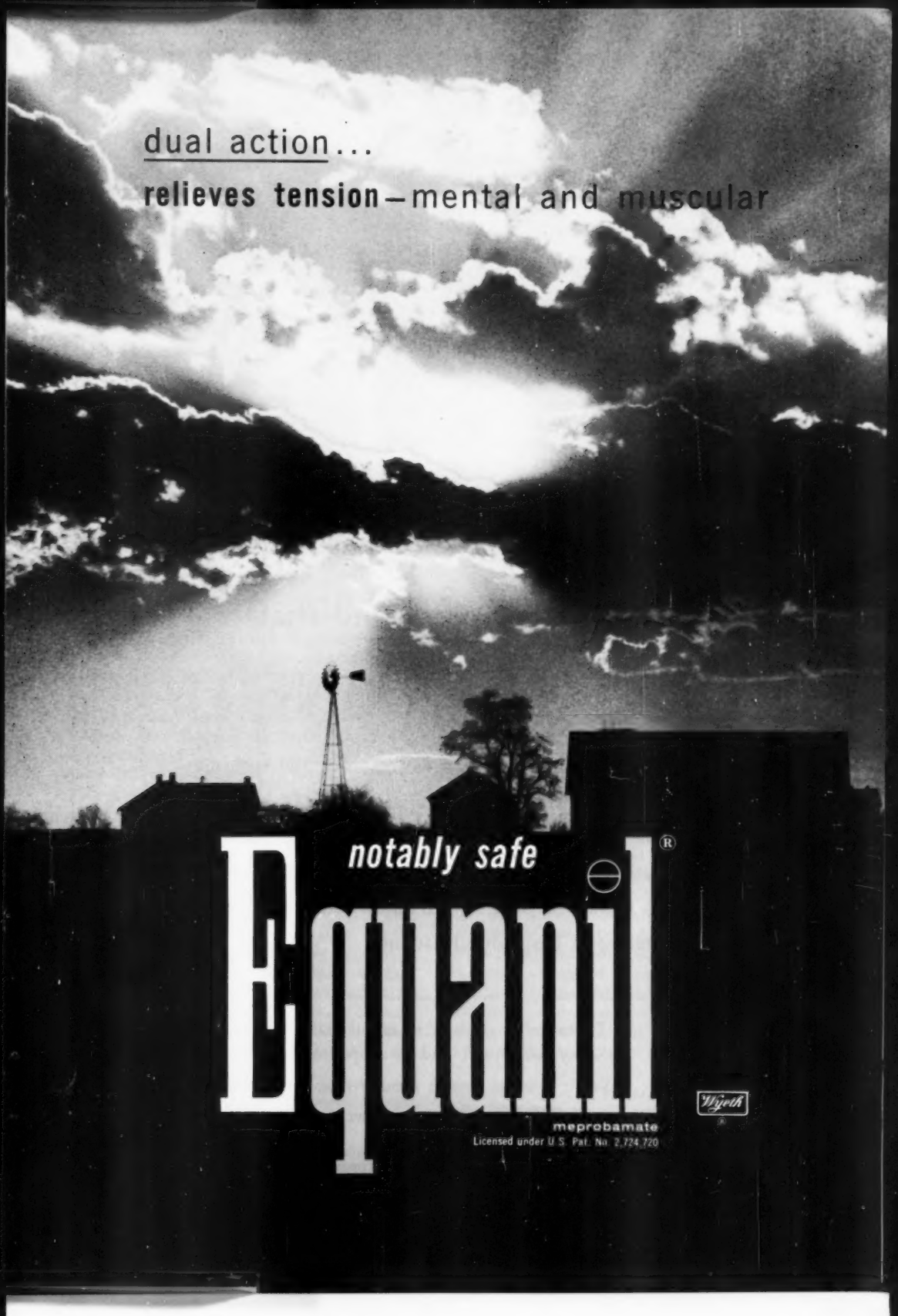
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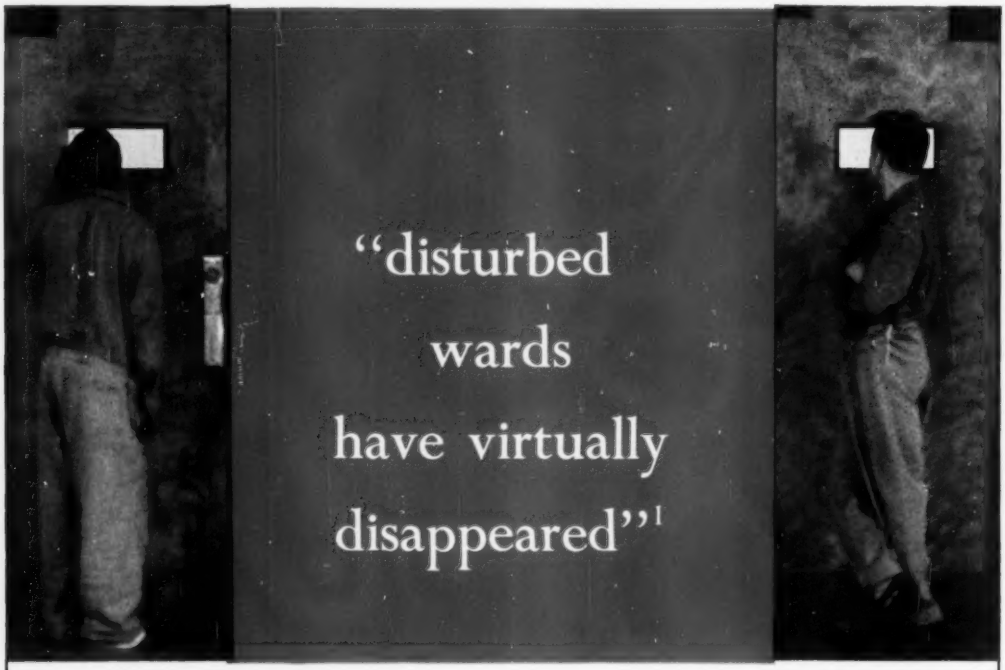

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1. Overholser, W., in Chlorpromazine and Mental Health, Philadelphia, Lea & Febiger, 1955.

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EUROPEAN AND BRITISH PSYCHIATRY[1]

T. FERGUSON RODGER[2]

The first point I wish to make to excuse my relative ignorance of developments on the continent of Europe and to emphasize my lack of qualifications to speak for my European colleagues is to point out that while you think of Europe and Britain as one, which is geographically correct, in psychiatry, as in other fields, both culturally and politically, the English Channel is a greater barrier than the Atlantic. Our isolation from the Continent and our closeness to you in America is not entirely explained by the absence of a language barrier between us; developments in American psychiatry always seem congenial to us because, I think, your problems, as well as your solutions, are very much the same as ours.

When we review the contribution of European psychiatry over the past 50 years, we do realise, however, that we, and I speak for both Britain and America, owe everything to Europe: our clinical classification, the psychobiological approach, psychoanalysis, all the physical treatments and electroencephalography. We are now being offered existentialism, applied to psychotherapy, and we are both showing the same resistance to accepting it.

I believe, although it is perhaps only an impression which would have to be justified by a study of the literature, that we tend to accept developments from America rather than direct from Europe. My knowledge of European psychiatry is, I confess, very imperfect and I am aware only of those features which have recently made some kind of impression on British psychiatry. In the case of German psychiatry we are still a little estranged because of the war: we cannot altogether forget that German psychiatry, having shed psychoanalysis, was able, with seeming ease, to adjust its beliefs so that they became compatible with Nazi myths and theories. Typologies lent support to racial prejudice and phenomenology was less critical of unreason than a dynamically oriented psychiatry might have been.

Perhaps the unity of British and American psychiatry is best explained by the fact that in our two countries, but not on the Continent, the psychobiological doctrine of Adolf Meyer came to be widely accepted. Macfie Campbell and David Henderson left Edinburgh to sit at his feet at Ward's Island. Henderson returned to become the leading figure in British psychiatry and wrote a textbook with Gillespie which became our standard work, effectively superseding all others within a few years of its publication in 1927. As a result my own generation tended to make the pilgrimage to Baltimore for our postgraduate training.

Although Henderson and Gillespie's text was hardly a full statement of psychobiological doctrine, it conveyed its essence and gave an admirable grounding in a dynamic approach to case-history taking and therapy. It was in this way that the psychobiological point of view sank in and became implicit in British psychiatry although the debt we owe to Adolf Meyer is seldom realised and even less frequently acknowledged.

This acceptance of an essentially dynamic viewpoint has created a soil on the whole more favourable to psychoanalysis than to phenomenology. It is on this background that the significance of the publication of a textbook of Clinical Psychiatry by Mayer-Gross and others, which is phenomenological in its outlook, has to be judged. Although the book has puzzled American reviewers who see it as some kind of throwback to a primitive phase of psychiatry, there are many psychiatrists in Britain who would regard it as a salutary return to careful clinical appraisal on a symptomatological level. This kind of approach is fostered by an interest in physical treatments. The mental hospital psychiatrist whose main problem is to decide which physical treatment he will use finds help and guidance in phenomenology although the same psychiatrist is likely also to be inter-

[1] Read at the Symposium, "Perspectives on International Psychiatry," at the 112th annual meeting of The American Psychiatric Association, Chicago, Ill., April 30-May 4, 1956.

[2] Address: 25 Campbell Drive, Bearsden, Glasgow, Scotland.

ested in psychoanalysis and the help it can give him in dealing with his psychoneurotic patients in the outpatient department.

Before I discuss British psychiatry further, I should turn to some consideration of the various points of view of which we have become aware in Europe during the past 10 years. It seems to us that in most of the European countries, the main emphasis is on physical treatment and in research based on biochemical or neurophysiological considerations. France has given us chlorpromazine; in recent years Switzerland has given us L.S.D. and the model psychosis as a field for research. In France the clinical approach emphasises careful case studies at the phenomenological level and, as I have said, many British psychiatrists would regard this emphasis as being salutary because careful case studies have been neglected in many other countries. Henry Ey has developed an organic-dynamic approach which has been called neo-Jacksonianism. Based on Hughlings Jackson's principles of evolution and dissolution of levels, his contribution is considered very significant by some British psychiatrists.

In Germany the impression one gets is that psychotherapy is practised on a rather superficial level and even on authoritarian lines but we are prepared to believe that it may be effective for all that. Our cultural differences explain our lack of interest.

But many German and Swiss psychiatrists have been influenced by the existentialist philosophy of Jaspers, which is based on Kierkegaard and Heidegger, and the revival of interest which is taking place in Germany in psychoanalysis tends to be combined with the existential analytic approach propounded by Binswanger. In Austria, Frankl of Vienna has promulgated his extended psychotherapeutic approach combining ordinary psychotherapy with logotherapy, which emphasises the importance of human responsibility. Frankl's views have attracted attention in Britain. He recognises three principles of importance to psychotherapy, the will-to-pleasure characteristic of psychoanalysis, the will-to-power of individual psychology, and what he would call the will-to-meaning. He regards the will-to-meaning as "that which most deeply inspires and pervades man"; "the innate, albeit often unconscious and sometimes even repressed, desire to give as much meaning as possible to one's life, to realise as many values as possible." "Psychotherapy," he says, "would turn this will-to-meaning . . . into a human frailty, a complex, or something of the kind."

This aspect of existence, the will-to-meaning, according to Frankl's view, lies outside psychotherapy, as ordinarily understood, in the spiritual domain. He defines logotherapy as a psychotherapy which not only recognises the spiritual, but starts from the spiritual. He believes that just as sexual frustration can lead to neurosis, so also can frustration of the will-to-meaning lead to an existential neurosis. He traces the modern epidemic of neurosis to man's fear of responsibility and his weariness with the spiritual. He therefore recognises existential neurosis as a clinical entity which arises out of philosophical perplexity and the failure to find an adequate meaning for life. He and workers in Kretschmer's clinic categorise 12% of their neuroses as being of this kind.

In very recent times there has been more interest in existentialism in Britain, for example one of my own staff who is psychoanalytically orientated takes part in an informal discussion group formed by members of the Faculty of Divinity and some psychiatrists, which meets regularly to discuss these new ideas. It is possible that similar groups, not, as yet, expressing themselves in print, are being set up in other parts of the country. It is, perhaps, not without significance that the annual conference of the National Association for Mental Health, held in Britain in the spring of 1956, had as its theme Personal Responsibility in Mental Health, and the views expressed by the various speakers showed the same kind of preoccupation with the significance of responsibility in relation to mental health as their European counterparts, although I doubt if there is any direct link between them, merely a growing consciousness of the effects of a dissolution of value systems as a result of war and the upheaval in European societies. In part these trends emerge out of the feeling that with neurosis increasing rapidly in Western countries it is too much to expect psychotherapy to cure all our psychic troubles and restore human dignity. After years of propaganda

in which we advocated the importance of psychotherapy we have come to consider that perhaps psychiatry and psychotherapy have been oversold and that, in the long run, we shall never be able to overtake, unaided, the enormous task which confronts us. This point of view has even been expressed in the correspondence columns of the Manchester Guardian (April, 1956) where doctors have expressed the dilemma in which they find themselves; they are seeing more and more patients suffering from neurosis and they can choose two ways in which to treat them. They can either use the various chemical compounds urged on them by the manufacturers which depress or excite the C.N.S., or, as most of them believe is the right course, they can attempt to treat their patients as human beings and try to help them by sympathetic understanding. Those who endeavour to help their patients by the second method find themselves too much involved. There is plenty of willingness to help and no great reluctance to recognise neurosis and to treat it as such but once the doctor begins to adopt this attitude to his patients, his responsibilities enlarge and can never be defined in terms of his medical duties. Doctors, in other words, are beginning to wonder whether, when a patient comes with a problem about his marriage or his career, he is not going beyond what can reasonably be demanded from his doctor. One effect of the National Health Service has been to extend the patient's concept of the doctor's responsibility. On the whole doctors welcome this manifestation of a closer emotional relationship between doctor and patient, so different from what had been expected, in some quarters, from the National Health Service. But now, faced with apparently unlimited medical responsibility, they are asking what the community can do to share the burden which the doctor at present carries on his own.

For example, The College of General Practitioners in Scotland has expressed its interest in investigating this problem in the form of an enquiry into the prevalence of neurosis in practice to take into account such personal factors as personality, training and experience as determinants of the medical relationship which allows the patient to express his problems to his practitioner.

From the side of the church, in Scotland at least, there is a definite desire to be helpful through industrial and hospital chaplaincies and expanding objectives in pastoral care. They are asking for cooperation on the part of teaching psychiatric units to give courses for clergymen, not to help them to become psychotherapists but to give them an increased insight into how to handle human problems falling within their own sphere. It is unlikely that, in Britain, psychiatrists will extend their psychotherapy to include the spiritual side of their patients' problems as Frankl's approach would suggest, but they will expect clergymen to play an increasing part in the mental health field.

Those with a key position in the community are becoming increasingly aware of their responsibilities in regard to mental health. An extramural course on mental health at the University of Glasgow, each year attracted more nurses, teachers, local government officials and the like until the success of the course proved an embarrassment to us because of the numbers. Mental hospitals have numerous offers by laymen who wish to do something on a voluntary basis for mental patients and very successful committees have been created in the mental hospitals who visit and take responsibility for some aspect of the patient's welfare. Numerous other organisations have sprung up spontaneously throughout the country to care for sick and disabled persons and their influence has been wholly good. They are not pressure groups but provide such auxiliary services for patients and their relatives as they find within their competence.

It is recognised that statutory services for the care and aftercare of the mentally disabled are required and provision is made for them. I, personally, am not satisfied that we have found the correct pattern for these services and, at least in Scotland, there is an unexpressed mood to await developments before formulating the kind of service which will be most effective. Local government in Glasgow has expressed its need to learn by establishing an informal link with the University for mutual study of social factors in mental health. A link of this kind is neither traditional nor envisaged in any statutory enactment. It arises out of the recognition that public welfare devoted to the satisfac-

tion of material needs and to ensuring that no sick person goes untreated only goes so far and there is a need to tackle problems in the community of a new kind. The new housing estates provide satisfactory living conditions in terms of accommodation and hygiene but produce isolation and dissolution of previously healthy social groupings.

In these ways psychiatrists are being brought to face the social problems which lie behind their practice. Mental hygiene for the psychiatrist becomes a matter of aiding and advising on developments which arise spontaneously elsewhere.

Psychiatrists in Britain nowadays almost always have a part to play in a general hospital through the setting up of outpatient clinics in general hospitals staffed by mental hospital psychiatrists. A process of mutual learning and understanding is taking place whereby the general physician, the surgeon and the psychiatrist cooperate in the investigation of their cases. The fact that psychiatry has been invested, over a comparatively short space of time, with heavy responsibilities by an all-inclusive health service, renders psychiatrists less liable to involve themselves in responsibilities for treatment in cases where other specialities have as yet equal or superior claims. The position therefore is, that psychiatrists are co-operating with their colleagues in research in dermatology, general medicine and other fields, stressing etiology rather than therapy. The fact that we are thus absolved from the criticisms that might arise from premature claims in the field of psychotherapy has helped in creating a harmonious relationship with our colleagues. This kind of psychosomatic approach has the virtue of avoiding the one-sidedness of some formulations which proffer a ready-made holistic psychological conception which cannot always be readily accepted by physicians who are only too well aware of their own side of the story.

In our own hospital department mutual helpfulness has resulted in research projects into asthma, coronary thrombosis, ulcerative colitis and phthisis.

It is in this field of psychosomatic research that the liaison between continental and British psychiatrists is greatest. The work which is being done at Amsterdam and Heidelberg has attracted a great deal of interest on the part of British workers. The editorial and advisory boards of the new *Journal of Psychosomatic Research* has members in Amsterdam, Rome, Stockholm, Madrid and Copenhagen, and British psychiatrists have been meeting their continental colleagues at an International Conference on Psychosomatic Research which was held in Amsterdam in April, 1956.

Sweden's main contribution, as it appears to us in Britain, is in the field of studies in heredity. It is perhaps significant that Germany, which led the way in this field before the war, seems to have given it up perhaps because it had become discredited through being used by the Nazis. The rightful heirs of that school of psychiatry are now Franz Kallman in New York and Eliot Slater in London.

The epidemiological surveys of the Scandinavian countries which are chiefly concerned with isolated rural populations are interesting methodologically and therefore have a basic scientific value but, since they are not dealing with the pressing problems of industrialised and urbanised communities, they seem rather remote from our concerns.

Here our interests are very much the same as yours because in common with you we are dealing with a highly industrialised society. Like you we are trying to develop a social psychiatry and in this there are determinants peculiar to our own development.

Since 1948 when the National Health Service came into existence, the development of psychiatry and the Mental Health Services can only be understood in relation to the new organisation of the Social Services. The idea of a welfare state, while it may not be politically acceptable to our critics, is now an important part of the British way of life. It would, of course, be untrue to say that doctors are wholly satisfied with the new regime but it is true that the majority accept it wholeheartedly and their frustration chiefly derives from the fact that the economic position of the country does not allow the further developments which everyone realises are desirable.

Psychiatry has gained by the National Health Service because mental health has now been given equal status to physical

health. The realisation by hospital authorities and the public that mental hospitals and psychiatric units had been given an inferior status in the past has created a loudly expressed demand in parliament and the press for improvements in hospital buildings, furnishings and diet as well as greater attention to research in mental health. This has happened elsewhere too, here in America, for example, through the care you have given to your veterans, but in Britain it is through the National Health Service that such changes are taking place.

The patient, and that is everyone in the community, has now the right to every kind of treatment and this has meant an enormously increased demand for psychiatric treatment. Ninety-eight percent of psychiatric patients under statutory care are in hospitals financed by the state.

The very great increase in admissions to mental hospitals, which began at the outbreak of the war when electroplexy was introduced, was accelerated after the war with the inception of the Health Service. In Scotland, for example, with a population of 5 million, the rate of all admissions to mental hospitals in the 5 years up to 1942 was steady at about .73 per thousand of the population per annum; by 1947 this figure had increased to 1 per thousand and in 1955 it was 1.76 per thousand—an increase of nearly two-and-a-half times in 13 years. This very great increase was due entirely to the rise in voluntary admissions over this period from approximately a total of 1300 in 1942 to 6,600 in 1955. The number of certified admissions in fact declined.

Patients, on the average, now spend only 1.9 months in the mental hospital and nearly three-quarters of all new patients are discharged within a year. It is a remarkable fact that this phenomenal increase in admissions took place with no significant expansion in the number of beds and, at first, with no great increase in the number of medical staff. Since 1948, however, there has been a steady increase in the number of psychiatrists employed throughout the country. Until 1954 the increase was proportionate to that which was occurring in other specialties but, in that year, the number of psychiatrists in training at the senior level had outstripped those in training for other specialties.

The provision for outpatient clinics has been greatly extended. Before 1948 only a few mental hospitals had responsibilities for outpatient clinics in general hospitals. Now the average hospital in England and Wales is responsible for about three such outpatient clinics.

The extension of the mental hospital psychiatrist's responsibilities to the outpatient clinic has led to a reorientation of his view of the mental hospital. While he has been spending a great deal of time with outpatients and has been handling a vastly increased number of patients seeking early treatment, this has not been at the expense of the chronic patients. On the contrary, the more helpful attitude which he is able to take regarding his newly admitted patients has led him to ask what more he can do for his chronic patients. There has been much more attention given to recreational and occupational activities in the hospital. At Banstead Hospital a Medical Research Council team has been supervising an experiment to create a factory within the hospital providing paid employment for the patients with, according to the first reports, remarkably encouraging results. Others have been discovering the value to the chronic patient of increased interpersonal relationships. In Glasgow, an experiment in group therapy of chronic schizophrenia gave promising results and indicated ways in which the therapeutic potential of the nurse and the mental hospital as a community could be increased.

Some of the enthusiasts for this new approach to rehabilitation already envisage their hospitals being emptied of all but a small residue of their chronic patients. They want no more hospital accommodation to be built until the effect of these measures has been fully worked out. The whole system of institutionalisation and alienation is suspect. The view is taken that it may produce more problems than the disease itself. This is one reason why there has been a very great interest in Querido's experiments in domiciliary care of psychiatric patients in Amsterdam.

Under the Health Service domiciliary consultations have increased by almost 100% in the 4 years between 1950 and 1954 and most psychiatrists would like to see much more attention being given to this aspect of the

Service. The need is for auxiliary workers and there is a great deal of discussion about the potential role of the public health nurse in the field of mental health. Day hospitals are also popular as a means of avoiding hospitalisation—there are now 16 in England and Wales dealing with psychiatric patients.

As you can see, psychiatry in Britain is changing its shape rapidly; it is acquiring a wider social orientation. While the service is still centered on the mental hospital the activities of its staff extend far beyond its walls.

Mental hospital psychiatrists now care for thousands of outpatients suffering from psychoneurosis. This responsibility is somehow being discharged although only a very small minority of the psychiatrists who undertake it have had any formal training in psychotherapeutic techniques. Most psychoanalysts are still in full-time private practice and there are only two outside London with responsibilities for teaching undergraduates or graduates. British psychiatrists are, on the whole, sympathetic to analysis but the analysts have played, up to the present time, a very minor role in the significant developments which are taking place in British psychiatry.

Obviously more attention will have to be paid to training psychiatrists in psychotherapy. At present there is only one Institute of Psychoanalysis in Britain providing intensive training, including personal analysis, and this has so far turned out only a few psychoanalysts who are interested in the general field of psychiatry. All we can do meantime in Scotland and the provinces is to use the few analysts who are prepared to pull up their roots in London, and act as supervisors of psychiatrists in training. Dr. Freeman, who came to my department 4 years ago as lecturer in psychotherapy in the university has been very helpful but he is the only analyst so employed outside of London. Most university professors, of whom there are now 9, with 2 more to be appointed this summer, are turning this problem over in their minds and trying to find some kind of solution but it is unfortunate that the situation in regard to the contribution which psychoanalysis could make should be so unpromising.

While most psychiatrists are doing psychotherapy because they are committed to satisfying a demand and are prepared to honour their commitments as best they can, the whole question of the value of psychotherapy is still unresolved. Eysenck has issued a challenge. He asks for a demonstration of the effectiveness of psychotherapy. This is the kind of challenge which cannot be ignored in Britain where national resources are involved. So far psychiatrists have been too busy doing psychotherapy to take time off to examine what they are doing and, moreover, few of them would be satisfied by a formal experiment purporting to test its value. The fact is that the demand is there and the service has to be given.

One last remark, as you can see there is some kind of determination to be open-minded about future developments. Psychoanalysis is tolerantly regarded but by no means supreme, in the field of psychiatric thought. As on the Continent, there is a desire to see psychoanalysis extend its concepts, to become more biological on the one hand and at the same time to comprehend more of man's nature on the other. On the biological side, Lorenz and Tinbergen have had a vital impact, although as Kortlandt has pointed out their views could be greatly widened if they could assimilate the contribution of psychoanalysis.

This relationship between ethology and psychoanalysis is the development which I personally would single out as being the most significant.

INTERNATIONAL PSYCHIATRY[1]

IAGO GALDSTON, M. D.[2]

There is an embarrassing vastness to the theme of international psychiatry. One could almost treat of anything and still be talking on the subject. Under the circumstances, it seems best to approach it at its simplest level. Thus, suppose we were to treat of surgery and not of psychiatry, then what would we say about international surgery? I suspect that all of us would agree that surgery is surgery the world over. Such differences as may exist between the surgery of one country and that of another would be reflective of advancement or retardation, that is, some countries would be technologically a bit ahead and others a bit behind, but they would all be traveling the same road. One could then affirm, without fear of contradiction, that surgery is one and the same the world over—that it is in other words truly international. But is this equally true in psychiatry? Let us take a look at a singular example. Let us look at, say, an American worker, and at his Russian counterpart. Let us asume that each has suffered, say, a compound fracture of the humerus. I am quite certain that in each instance the procedure followed in the treatment of the fracture would be, if not identical, certainly close enough to be equivalents. In other words, the American worker in America and the Russian worker in Russia could be interchanged in the locus of treatment, and yet come out having had pretty much the same experience. But now let us assume that instead of having suffered a fracture we are confronted with a Russian and an American, each of whom is suffering from some psychiatric illness—say a hand-washing compulsion. In such a case, one could be sure that the treatment of the Russian and that of his American counterpart would be quite different. The Russian therapist, treating the Russian, would be oriented in Pavlovian psychiatry, and would be indifferent to and indeed even antagonistic to psychoanalysis and to all forms and schools of depth psychiatry. The American psychiatrist, on the other hand, while perhaps not too well informed on the subtleties of the conditioned reflex, would not be overtly antagonistic to them. His therapeutic accents and emphasis however would be radicaly different from those of his Russian counterpart. To summate this—the Russian surgeon would closely resemble the American surgeon. But such would not be the case with the Russian psychiatrist and his American counterpart. Let me paraphrase it still another way—there *is* an international surgery, but only a *national* psychiatry.

One might easily be tempted to believe that the instance cited is loaded, that the example is unique—with Russia at one pole and the United States at the other. Or one might even assume that the difference is not really Russian, but merely Communist in character.

This assumption however, would be not only erroneous but also beside the point. Pavlov was a Russian and really never a Communist and Russian psychiatry was always different from European psychiatry (Korsakov—Bechterov), just as Russian literature and Russian drama differed from that of Europe.

The fact is that psychiatry is *nationalist* in character not only for Russia but for most countries and for most nations. In that respect it is unique among the biological disciplines and specialties!

What evidence can we muster for this affirmation? I think the data of history will do very well. Thus I am sure it was no accident that both Mesmer and Freud were not only citizens of the same country, Austria, but also of the same city—Vienna. Nor is it a negligible fact that Romantic Medicine had its roots and its broadest field of exercise in the Germanic countries. Among the great authors of the Romantic Period are to be found the anticipators and the forerunners

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of modern depth psychology. These are to be found no less among the novelists and poets—Novalis, Tieck, Schlegel, Chamisso, and Uhland, than among its scientists—Carus, Schelling, Oken, Schubert. Carus had fathomed the role of the unconscious in the operations of the psyche some 60 years before Freud, and Schubert wrote a work on dreams which is in some respects superior to Freud's classic study. Austro-Germanic psychiatry stands in marked contrast to that of France, and of most of the Latin countries. In a measure it was cultivated in protest to the rationalist-materialist-mechanist viewpoint, developed by the outstanding French scientists during the Age of Enlightenment. French psychiatry took its line of departure from Descartes, and down to the time of Pierre Janet has been essentially, and almost exclusively Cartesian, that is *materialist* and *mechanist*.

The fame of French psychiatry derives from its liberal, humanitarian, custodial treatment of the insane. Its psychiatry, however, has practically always been mechanistic. Janet, who perhaps better than anyone else in modern times, has given us a definitive nosography of the neuroses, and who thereby came so very close to Freud's ideas that some have suspected Freud of plagiarism, was yet a mechanistic psychiatrist, quite in the Cartesian tradition. Neurasthenia, which to Janet was the critical etiological factor in mental disease, and particularly in the neuroses, is primarily an energy concept. The neurasthenic is one who is weak or weakened in the operations of his nervous system. Neurasthenia, incidentally, was a psychiatric concept also much favored by American psychiatrists in the early part of this century, notably by Boris Sidis.

French psychiatry and Austro-Germanic psychiatry are two outstanding examples of what can with warrant be termed—national psychiatries. But English, Italian, Swiss, and even American psychiatry have each their distinctive national accents. The English have given rise to no definitive "schools of psychiatry" but in psychiatric practice they have been and continue to be pioneers in the "custodial treatment" of the mentally sick. I call to your attention the noteworthy work of T. P. Rees.

The French, following on the revolutionary and dramatic achievements of Pinel, gained a reputation for the humane treatment of the insane, but it was, I am sure, the English who actually and consistently achieved the most in this sphere. This is quite understandable, for it is in consonance with the spirit and tradition of British social justice and British social reform. Swiss psychiatry has, it seems to me, always been rather heavily freighted with moral and religious considerations. Jung, of course, may be cited in witness, but the characteristic antedates Jung, and is reflected, for example, in Maeder's work, as well as in that of Forel.

Italian psychiatry is difficult to characterize, for it shares in a large measure the imprint of French psychiatry; it is in other words permeated with the philosophy of Cartesianism. One thing, however, is noteworthy. Italian psychiatry as Italian medicine in general is rich in *instrumentations* and in instrumental procedures. The Italians have been good technicians and medicine entire has profited by their skills. One can think at random of Galileo, Sanctorio, Borelli, Volta, Forlanini, Cerletti—men who have enriched the practice and science of medicine with the products of their inventive genius. Electroshock therapy and electronarcosis are Italian contributions to the physical modalities of psychotherapy (Cerletti and Bini, 1938).

American psychiatry, by which I intend psychiatry in the United States, is essentially eclectic, and if there is anything distinctively national about our psychiatry it is the facility with which we accept and make our own the scientific contributions of other peoples and of other nations.

In psychiatry we are not chauvinists. It is indeed noteworthy how very few of the psychiatric formulations, academic or otherwise, and how very few of the psychiatric diagnostic or therapeutic procedures we utilize are truly native in origin. Our contributions in psychiatry are less of an inventive nature and more of an elaborative character. We "take over and develop," sometimes, as in the case of behaviorism, with rather unhappy results. In all of this I am not unmindful of Adolf Meyer's contributions, those of Sul-

livan, and those of Trigant Burrow, three of America's most original psychiatric theoreticians. Trigant Burrow, incidentally, is all-too-little known and appreciated. However, despite this cluster of brilliant minds, and others besides whom I have not named, American psychiatry is much more eclectic and integrative than original.

This brings me to something which I must hasten to express. Generalizations concerning the psychiatry of a country are as subject to contradiction and exception as is any generalization about *a people*. We say Norwegians are tall, blond, and blue-eyed, while Italians are short, dark, and brown-eyed. But there are some short Norwegians, and in Northern Italy there are quite a number of tall, blond Italians. And yet despite these exceptions, the generalizations still *are valid as generalizations*.

Scanning the distinguishing characteristics of nationalist psychiatry, I could not but also recall that Mesmer had his greatest triumph not in Vienna, nor even in Austria, but in Paris, and yet it was the Commission of the French Academy whose membership included our own illustrious Benjamin Franklin, which, so to say, gave the *"coup de grace"* to Mesmerism in France, with what we now cannot but esteem as the fatuous judgment—*"l'imagination fait tout, le magnétism nul."* England was in effect the land wherein Mesmerism found its most devoted and intransigent defenders and theoreticians, in Braid, and Ellistson.

Charcot, Bernheim, and Liébeault are the links whereby Mesmerism, transmuted into hypnotism and suggestion, reach to Freud, again on French soil. Nor can we overlook the fact that psychoanalysis found its first "academic" recognition not in Austria but in Switzerland, at the Berhölzli in Zurich, and that the United States more than any other country has proved hospitable to the "Viennese—Romantic." It was an event of heroic proportions when, in 1909, Stanley Hall invited Freud to come to America to expound his psychological theories, and James Jackson Putnam, then in his sixties, became a student and advocate of psychoanalysis.

I have set in opposition the Austro-Germanic and the French schools of psychiatry, yet one could question whether any French admirer of Descartes could out-vigor in his Cartesianism, that is, in his determinist and mechanistic interpretations of the human brain and of its operations, Freud's own teacher, Theodor Meynert. Add to Meynert, DeBois Reymond and von Helmholtz, and you have a masterful contingent of Cartesians right in the very heart of the Germanic realm.

All this would then appear to invalidate any asumption of a nationalist psychiatry. But in effect it doesn't and cannot—just why, I'll demonstrate later.

The exceptions I have cited, and I could well have increased their number tenfold, only prove that every valid generalization has its exceptions which while true enough do not singly or collectively invalidate the generalization. Or to paraphrase it, homogeneity is a statistical preponderance, not the highest state of uniformity. The Norwegians really are tall, blond, and blue-eyed, even though some Norwegians are otherwise.

Now then, you might properly ask, suppose we grant you all this, suppose we grant you that regional psychiatry is nationalist in character, what of it?

The answer is that in this concurrence we have the validation of a most interesting and most provocative issue, namely, *Why of all the medicobiological disciplines is psychiatry the only one that is nationalist in character, while all others, say surgery or endocrinology, or immunology, are global, universalistic, or, as we have affirmed it, international in character.* The answer to this is as simple as it is direct, and, as it is exquisitely significant. It amounts to this: in all other departments of medicine the physician intercedes between man and nature, and, of course nature is the same the world over. In psychiatry however, the physician intercedes between, not only man and nature, but most often and mainly, between man and society, and society, that is the social organism, its structure, operations, exactions, etc., quite unlike nature's, is *not* the same the world over. Society frequently changes in the most astonishing ways *"at the national border."*

Psychiatry, though essentially a biological science, must perforce take into account and be responsive to the societal and cultural *field forces* in which its subjects operate.

That is why psychiatry takes on a nationalist complexion. For psychiatry is in effect an anthropological science, superstructured on the elementary sciences of neuro-anatomy, neuro-physiology, and functional psychology. Mankind, hedged in by the universal and omnipresent demands of nature, has, during the 500,000 years of his being on earth experimented with, and has cultivated a variety of ways to meet them, and these he has formulated and sanctioned in a variety of ethical, cultural, economic, aesthetic, and moral patterns, all of which are reflected in his singular societal group pattern.

Hunger is hunger, the world over. But how man satisfies his hunger, be it for food, sex, property, or power, differs the world over. Psychiatry is involved not only in the anatomy and physiology of hunger, but even more, in the societal group patterns, the mores and taboos for satisfying hunger. That is why psychiatry is initially nationalist in character. For nations do have a predominant and characteristic group pattern for ethical, cultural, economic, and moral operations.

Salvador de Madariaga, in his stimulating book *Englishmen, Frenchmen, Spaniards* (Oxford Press, 1920), makes these pertinent comments.

> There *is* such a thing as national character. Opinions may differ as to the influences which create or alter it. Race, climate, economic conditions, may enter for a greater or lesser part in its inception and development. But the fact is there and stares us in the face. History, geography, religion, language, even the common will are not enough to define a nation. A nation is a fact of psychology. It is that which is *nat*ural or *na*tive in it which gives its force to the word *na*tion. A nation is a character. (p. 41 *op cit.*)

To affirm, and to concur, as I believe we must, that "A nation is a fact of psychology," and that "A nation is a character," is to do more than to second and endorse the apt phrases of an ingenious social observer. It is, as a matter of fact, to take on the commitments of some very pertinent implications. It is indeed to acknowledge that psychiatry, though rooted in biology, transcends it, reaching into the outstretching terrains of social anthropology and ethnology. Thus we cannot and may not expect to find an answer in the data of neuro-anatomy and neuro-physiology, refined though they be to the ultimate, to the problems that derive from value judgments, life goals, ambitions, ideals, or from conscience and guilt. These, in the last analysis, are societal rather than simply biological quanta. Likewise, these in the last analysis give meaning to the affirmation that "A nation is a fact of psychology," "A nation is a character."

There is a converse implication: it may be that the problems themselves, those which psychiatry confronts, may not be biologically solvable, even with the aid of the most sovereign tranquilizers, but may be amenable to solution only as value judgments, life goals, ambitions, ideals, and guilt are modified and made more reconcilable with human capacities, and with the potentialities of reality.

Recently, I was privileged to take part in a conference of very learned professors (I was the mute and generously tolerated outsider), who ventured to question the assumed superiority of the Western world's concept and ideal of individualism, seeing that this ideal was shared neither by the Chinese, the Indians, nor the Russians. The crucial issue however, turnd out to be not the superiority of the Western world's idea of individualism, but rather, whether in effect it was an existing reality, and not merely a figment of the imagination. All this, however, has taken me far afield, and you might properly ask—what has it to do with International Psychiatry. Indeed, you might go further and affirm something of this order: granted that psychiatry carries the complexion of its national locus, I, myself, as a psychiatrist, am after all national rather than international: is it not then quite sufficient for me to be acquainted with, and facile with, my own native psychiatry? Must I also be informed on, and at ease with, Russian Pavlovianism, Austrian Neotranscendentalism, French Existentialist psychiatry? Obviously, there is no *must* in the situation, nor in my argument. The compulsion or *must, to appreciate international psychiatry,* derives, if at all, from one's own professional body image, or if you wish, from one's ego ideal. Spoken plainly it means "it all depends on how sophisticated you aim to be in your professional orientation." But in truth there is more to it.

There is an ancient saying "I fear the man

of one book." I would paraphrase this to read "I fear the monolithic psychiatrist!" I fear the man of one book, the orthodox devoté of the one school, the so-called elect among the elect. Historically there was justification for partisanship. The pioneer must perforce be the passionate protagonist. But we are now far beyond the pioneering stage in psychiatry. The affiliation suffix *ian* must currently be deemed the symbol of an arrested fixation.

In psychiatry it is incumbent upon us to *recognize* national accents, but only within the purview of an international encompassment. I am sure this is none-too-clear, but then the issue itself is complicated and obscure. Let me try to make it a bit clearer. In the different nationalist cultures it was not different species of men that came under scrutiny, but rather the same men, under different scrutinies. The Russian isn't really different from the New Zealander or the American. It is the "emphasis," as the Frenchman said, that differs. There is no economic man, distinct, say, from the religious man, or from the biological man, or from the social man. There is but one man, to be studied from many angles.

Much of psychiatry, propounded on a nationalist level, and espoused by the so-called singular schools of psychiatry, is, however, single-faceted, not all-inclusive but rather parochial. Thus we encounter schools that accent "the instinctual man," or "the neurological man," or "the spiritual man," and so on. The overriding evidence, however, is that man is *none of these, singly,* but *all of them, collectively.* Man is "instinctual," "economic," "neurologic," "spiritual," and, much more besides.

I have drawn great encouragement of late from the criticisms leveled, chiefly by the younger men, against the orthodox positions of the older schools, which are seemingly indifferent to, or ignorant of, the economic, social, cultural, and religious factors that enter into and affect mental and emotional health and stability. They ask, for example, what of the minority group individual who finds himself in the midst of an inimical majority. What order of normalcy can you expect from him, and may not his "abnormal" reaction be situationally quite normal? I have been much stimulated by the resurgent interest among psychiatrists in the role of religion in the emotional life of the individual. There is a most praiseworthy concern now emerging with the *family* as the matrix setting of the individual, and it is encouraging that even among the orthodox analysts some have come to recognize the difficulty, nay at times the impossibility, of dealing with one partner in a marriage to the exclusion of the other, or with one member of a family group to the exclusion of the other crucial members of the family group. What I am saying then is that an appreciation of the varied and different approaches to man reflected in the historical psychiatry of different nations, and integrated in a global survey of psychiatry, will afford us a better balanced and more comprehensive understanding of man psychological.

We need to cultivate such a balanced and comprehensive understanding of man psychological, in order that we might be better, *i.e.,* more effective psychotherapists, and also that as educated men in positions of power and prestige, we might help mankind to wrestle more effectively with the enormous problems confronting us. We in the United States are in particular need for a comprehensive understanding of man psychological, for we are, ourselves, an international nation—that is, a nation more *compounded* than *amalgamated,* out of many nationalities. I grant that even as psychiatrists we cannot be all things to all men, but we can and must seek to understand more things about more humans, for in essence this is requisite to our function.

We once entertained in this land of ours the fiction of a melting pot. The crude ores of all our immigrant peoples were to be smelted into the prototype of Homo Americanus. But it was never effected: and isn't ever likely to be, and thank the Lord for that. Nor, looking forward, does it seem likely that this world, becoming *one world,* will be rendered as of one world.

Before World War I, at the time when the melting pot idea was so common, we in America also believed that we were at the head of the procession marching on the long

road from barbarism to democracy. We looked upon the backward nations, *i.e.*, those ruled by kings and emperors, those without bath tubs, refrigerators, automobiles, votes for women, and other "civilized" appurtenances, as stragglers on the highway of civilization, late to get started and slow to move on, but likely, with our good example before them, to get going, and in time perhaps even to catch up. Without affirming it in so many words, we assumed that America forecast the pattern of things to come for all peoples and all nations. If you will trouble to study Woodrow Wilson's political philosophy and his 14 points, you will perceive how much we considered ourselves the pattern for all men.

Two world wars and the challenge of two non-democratic philosophies of government—fascism and communism—(I cannot count Nazism as a philosophy but only as an epidemic madness)—have sobered us in our expectations, and have prompted us to question our assumptions.

We are beginning to suspect that there may be *not one*, but many ways to live life, that *I* for example might prefer individualism, but that collectivism is preferred by others and may even be more—in this complexity—suitable to their needs.

AMERICAN PSYCHIATRY[1]

JOHN C. WHITEHORN, M.D.[2]

To give a brief yet meaningful view of American psychiatry—that is the task required of me at this moment. To make it brief means to omit much; to make it meaningful means to express (or to imply) some interpretations. Selection and interpretation inevitably produce some distortion. I hope that the distortions involved in my brief sketch will not produce an unjust caricature, or any unjustified euology, of the professional work and aims of American psychiatrists—a professional group approaching ten thousand in number, with widely diversified interests, working in a general population which regards their efforts with unprecedented interest and which grants them an unaccustomed measure of acceptance. This situation astonishes the rest of the world—and it is also somewhat confusing to us.

It is perhaps fortunate that I must present this view of American psychiatry in the presence of a considerable and important segment of the American psychiatric profession, competent to set me right in any serious misstatement, but, I hope, sufficiently kind to overlook minor lapses.

The historical background of American psychiatry has been the humanitarian but medically professionalized care and treatment of the insane; but a very significant recent development has been the increasing attention and effort devoted to the problems of life stress and to the treatment and prevention of neurotic discomforts and disabilities.

Quasi-technical psychiatric terms like "personality," "attitudes," "reactions," "complexes," "defense-mechanisms," etc., have gained wide popular usage and the climate of opinion fostered thereby constitutes a part of the social milieu in which American psychiatrists choose their careers and do their work. There are occasions when one is inclined to deplore the exaggerated expectations sometimes generated by psychiatric "public education." For example, some American mothers have been thrown into great anxiety, which has driven them to seek frantically for fixed rules as to the right method for bringing up children.

Yet it seems probable, on the whole, that the American public is being led to develop more naturalistic ideas about mental illness in place of age-old attitudes of horror and superstitious aversion. The net result in the long run should therefore be constructive, although temporarily we may suffer from prematurely crystallized and prematurely popularized hypotheses.

At present, American psychiatrists appear to be in a mood of dedicated optimism and therapeutic fervor, contrasting markedly with the pessimism or therapeutic nihilism of the preceding generation. Even in the presentation of the statistical size of the psychiatric problems, Americans manifest currently, by implication if not outspokenly, an underlying optimistic obligation, as if to say, "See what a problem we have! Something must be done about it, and something will be done about it!"

In our therapeutic eagerness we may, in the eyes of our foreign friends, manifest a somewhat excessive enthusiasm regarding the measures we happen at the moment to be using. Our psychiatric journals reflect these waves of enthusiasm, and even more, the daily press, but these media do not in true measure reflect the more sober conservatism of the larger number of psychiatric practitioners; hence those who know us only through our journals or newspapers are likely to get a somewhat exaggerated idea of this over-enthusiasm.

The present rather characteristic American mood of therapeutic eagerness, although welcomed for its constructive force, has given concern to some of us in close touch with the young men and women entering upon careers in psychiatry. We had a strong surge of enthusiasm in the forties for psychodynamic formulations and psychoanalytic therapy;

[1] Read at the Symposium, "Perspectives on International Psychiatry," at the 112th annual meeting of The American Psychiatric Association, Chicago, Ill., April 30-May 4, 1956.

[2] Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital, Baltimore, Md.

now we are in the midst—perhaps only at the beginning—of a wave of enthusiasm for a *pharmaco*dynamic approach. The general atmosphere of obligation to cure seems at times to deaden a bit the eagerness and the industry available for the hard tasks of gaining more fundamental understanding. Preoccupation with therapy seems at times to have somewhat the quality of an obsessional neurosis. The appeal of therapeutic practice —an appeal which is emotional as well as financial—appears to outshine, for some of our ablest young psychiatrists, the appeal of the investigative work. Fortunately, this tendency has not been altogether sweeping.

One manifestation of the increasing public interest and optimism regarding psychiatry in America has been the increase in funds made available for psychiatric research both by private philanthropy and from Governmental sources. A considerable proportion of these millions of dollars is being put into studies which we now like to call "behavior sciences." If the intensive cultivation of this field by the project method *can* be counted on to produce fruitful results, the next scientific generation should understand behavior better. It could be, however, that we will merely get newer and more elaborate versions of behavior*ism*. The problem of wisely expending such increasing funds has been a matter of much concern, with a tendency to rely heavily upon advisory committees and boards to select fruitful projects. There are grave dangers of waste and ineffectiveness in expending research support on committee-selected projects of relatively restricted operation and duration. In this way, support is more readily obtainable for the hypothesis-testing function of science than for creative work. Experimental design gets priority in committee deliberations over the capacity to generate ideas and to stimulate the investigative work of students. When I spoke before this Association 6 years ago, upon the role of the university in medical education and progress, I commented rather harshly upon the disadvantages of the project type of supporting research. It seemed that the American public was being led to expect that the fruits of science could be regularly obtainable without giving basic support to the educational and scholarly enterprises which nourish the roots of the tree, through free inquiry and unrestricted curiosity. Others have also spoken, more effectively, to the same purpose; and there is coming about a slow and gradual, but perceptible, liberalization of the terms and conditions of research grants. The American people have always given generous support when their interest was aroused, but we as a people have been somewhat impatient about basic research, and are only now gaining an appreciation of the slow and undramatic processes involved in basic scientific progress. We have tended to think of research as a job to be done rather than as a thought to be pursued, wherever it might lead, and so we run, by habit, towards surveys or projects.

This Association is at present engaged, with other related professional groups, in a three-year survey by a selected task force, of the problems of mental health in America. One result of that survey will undoubtedly be a comprehensive report, depicting truly the present actual situation in American psychiatry in contrast to the impressionistic sketch I now present. This survey will assuredly provide a graphic picture of the psychiatric tasks, and a critical review of the institutionalized agencies currently employed to perform those tasks. I hope that it will also attempt to depict the germinal ideas, so far as they can be ascertained, which as yet may have no direct application in the mental health field, but which in fundamental ways may deepen our basic understanding of the psychiatric problems. The survey will not of course be altogether successful in pinpointing these basic concepts. Some of them have not yet been conceived, and some conceptions that will in time be fruitful may look at present pretty insignificant. But it is one of the great needs in America to devote a larger share of its available support to the unrestricted research which is potentially productive of basic ideas, in situations most favorable to creative thought and to the stimulation of oncoming students, *i.e.*, primarily in the universities. There is evidence, as I say, of a movement for greater support in this way to nourish the roots of creative investigation; and the survey by the Joint Commission will, I hope, emphasize the sound strategy of that mode of cultivating knowledge.

The social sciences are receiving currently considerable support in the name of psychiatric research, and this tendency is in accord with the prevalent emphasis in American psychiatry upon the social implications of mental and emotional illness—an emphasis upon social implications which has for half a century persistently characterized American psychiatric thinking, beginning early in this century in Dr. Adolf Meyer's interests, (1) in the development of social habits, (2) in the influence of school life on personality development and (3) in the individual person's use of the consensus for the maintenance of a healthy outlook on life.

Characteristic American interest in the basic social implications of psychiatric illness also found expression in Harry Stack Sullivan's interpersonal formulations, in more recent transactional formulations as exemplified by Grinker's group of investigators, and in the reformulations of psychiatric and psychodynamic problems in terms of social roles, as expounded by Norman Cameron, and more recently by John Spiegel. Erik Erickson's recent studies of the adolescent's struggles over ego-identity may be grouped also with these socially-oriented psychodynamic studies. The basic ideas of Sigmund Freud have strongly influenced these developments.

It may be that the preoccupation of American psychiatrists with the social environment is a reflection of our cultural history as a melting pot for people from widely differing cultural backgrounds, and the extensive cultural changes which have accompanied internal migration, incident to industrialization and urbanization.

Moreno's sociometric methods of study and his psychodramatic methods of therapy have exerted a stimulating influence on the study and utilization of social forces in psychiatric work.

A growing tendency toward collaboration between psychiatrists and religious leaders has been a feature of some of the experiments in social psychiatry, such as those of Eric Lindeman in New England. Our president has just taken the lead toward further collaboration.

The social worker has long been a close collaborator with the psychiatrist in America. Without displacing the social worker, the sociologist and the cultural anthropologists have more recently become working partners also, in the direct study of the social and cultural implications of mental health problems. The studies by Redlich and his collaborators at Yale provide a good illustration of the "multidisciplinary method," so-called, for the study of the social environment. Alex Leighton's project in Nova Scotia and Tom Rennie's study of an urban population in New York City are American examples of social psychiatry. Added stimulation to this social trend of psychiatric thought has come from the classical study by Stanton and Schwartz of the mental hospital as a dynamic social system.

In relation to this socio-dynamic trend, it is significant to note that in many discussions of drug therapy—*e.g.* chlorpromazine—special emphasis is placed upon the improvement in the social milieu of the mental hospital ward, and upon the challenge thus presented to the better use of personnel and of the social milieu for basic therapeutic purposes.

In a less mature period of American psychiatry we witnessed much dispute and rivalry between those who advocated an environmental approach and those who advocated a pharmacological approach to the management of behavior disturbances. Now we see, in a practical way, how these different approaches should not be rivals, but supplements to each other.

Here is a good point at which to raise the question, how does American psychiatry deal now with the old question of heredity and environment? In sheer bulk of psychiatric literature, the social environment receives from American psychiatrists the much greater emphasis.

In contrast, it is often remarked that the psychiatrists of the European continent have emphasized biological and hereditary factors in mental illness. The twin-studies of schizophrenic patients by Kallmann in New York have brought forcefully to the attention of American psychiatrists the probable importance of constitutional factors in the determination of schizophrenic types of reaction. Kallmann's accumulation of data has also served to clarify the point that genetic in-

fluence does not mean inevitability—that identical twins do not invariably come to the same end, thus posing the question how to make the most constructive possible use of differential life experiences and differing ways of using identical genetic endowments of combinations of favorable and unfavorable factors. At present, this question provides a topic for discussion, but we have not integrated such considerations into practical programs for action, or even for experimental investigation. The possibilities of deterioration of human material through more effective care of the constitutionally deficient, is occasionally commented upon, but there does not appear to be any concerted program toward genetic control, such as we had in the first two decades of the 20th century.

The biological aspects of psychiatry are probably due for an extensive reappraisal in the light of much recent neurophysiological investigation in America. The work of Magoun on the reticular substance has particularly aroused much interest because of its probable pertinence to clinical phenomena of anxiety and motivation and to the effects of so-called tranquilizing drugs.

The wave of interest in psychotherapy is strongly maintained and constitutes one of the marked characteristics of American psychiatry. This interest is not confined to the practical applications, but is manifested also in a fair number of studies designed to throw light on the nature of the psychotherapeutic processes. The publications by Powdermaker and Frank and their associates on their studies of group therapy provide examples of the manner in which it is possible to take advantage, for investigative purposes, of the relatively more public and exposed operations of the group, as compared to the privacy of individual psychotherapy. Special psychological interest has been focussed upon the learning process, because of its probable significance both in the therapy and in the pathogenesis of emotional illness.

One of the most distinctive recent features of American psychiatry, as observed by foreign visitors, is the large role played by psychiatrists in medical education—particularly in the "basic science" aspects. The prototype for such teaching was Adolf Meyer's course in psychobiology, in which students were oriented by a holistic approach to human nature in illness and in health, with special attention to the existence of different levels of integration and with special emphasis upon the symbolic level. Great diversity now exists in the different medical schools in this aspect of teaching, but in general it may be said that the emphasis is upon psychodynamic, humanistic and sociological considerations in medical problems. "The patient as a person," is the key phrase. Collaboration with internal medicine, pediatrics and social service in teaching medical students constitutes a significant part of this expanded program of psychiatric instruction.

It is probably significant to say that the chief aim of such educational efforts is attitudinal rather than informational, even though that distinction may be somewhat artificial. In one experiment there was an attempt at a kind of massive group psychotherapy upon the medical students, but that plan has not been approved or followed by others.

In some measure, the efforts put into these early courses for medical students represent the desire to cultivate a humanistic approach to medical problems. Some foreign observers have seemed puzzled as to why in American medical education this aspect should be a responsibility of psychiatry. Admirers of psychiatry are likely to explain this by saying that psychiatrists are the medical specialists who have felt most keenly and have responded most adequately to the necessity of comprehending and synthesizing the fractional views of patients in a comprehensive understanding of the patient as a person. It is also stated that psychiatry got ahead of other branches of medicine in its appreciation of personality and temperament and in the practical development of methods of studying human personality.

I have expressed these points in cautious language, because I cannot quite go along with those who would claim all the credit for psychiatrists. For many years I have been deeply impressed by the human qualities shown by internists, surgeons and other specialists in their positive concern for patients' welfare and the respect and consideration they have shown to patients. One mani-

festation of these attitudes, which is fairly typical of American medical practice, has been the *regular* thoughtful discussions by doctors with their patients, designed to help the patient understand his medical problem and exercise wisely his freedom of choice and his possibilities for constructive partnership in medical or surgical or other measures aimed at his best health and best functioning. If we make the point that psychotherapy is a special elaboration and intensification of this procedure of talking things over, and its special application to problems of emotional difficulty and social maladjustment, we perceive a considerable unity of psychiatry with general medicine, as the role of doctor and patient have developed in the American culture. One of the most brilliant and most effective discussions of the patient as a person has been written by an eminent American internist, Francis Peabody. Psychiatrists, collaborating with others in the type of teaching which I have been discussing, have gained as well as given.

It is now a characteristic feature of American medical education that the psychiatric teacher starts quite early with the students and does provide considerable instruction in the basic concepts for the intelligent understanding of human behavior and human reactions of patients.

In bringing to a close this brief impressionistic sketch of American psychiatry, I should make it clear again that I have chosen to stress what have seemed to me the most distinctive features. This attempt at broad characterization should be supplemented by a look at this program of our annual meeting, and a quick mention of the numerous regional conferences, the mental health institutes devoted to the problems of the mental hospitals, and the organizational structures developed by this Association, such as the Hospital Service, the Central Inspection Board and the Architectural study project. In these ways we manifest our numerous common interests with the psychiatrists in all countries, as well as our characteristic American tendency to get organized for cooperative enterprises.

GROWTH AND AGING

EDWARD L. BORTZ, M.D.[1, 2]

THE GROWING PROBLEM

For a good many years I have been interested in problems of aging, the changes in man which appear with the passage of time.

Medicine must be concerned with the deep dissatisfactions of our aging citizens; if for no other reason it is because of the spectacular increase in numbers. This is a huge problem for society to solve. It is becoming evident that the health, medical and welfare problems of our senior citizens is the number one challenge to our nation today. There is a vast amount of waste of human resources represented in the elder population, many of whom are being retired and thereby rendered inactive just at the time when their great needs are continued opportunity for employment and participation in the busy world.

The duration of life today is just about double that of a century ago. In 1930 there were 6½ million of 65-year-olds and in 1956 the number was approaching 15 million.

These elder citizens are an entirely different kind in body and vitality than the elders of an earlier day. Not only are they living longer: they are capable of retaining buoyancy and usefulness far into the higher years. Furthermore, there is high promise on the horizon that, in the next 10 years, a great deal of extremely important information concerning the most common wear and tear disorders of aging bodies will be formulated. Then, when this happens, there will be another substantial extension of the human life span.

I am unhappy because our medical leaders, especially those responsible for training doctors have, until now, shown little inclination to come to grips with this expanding issue.

Aging is a human dimension which can be measured chronologically. But more important, biological aging is to be measured in terms of organic tissue changes, performance, repair and recession. There is rhythm in this living world, and beauty and design. Certain broad patterns are beginning to crystallize. Highly refined scientific techniques are now being developed. Man's battle with time is a problem of energy dispersion. In many ways it is now becoming possible to control the rate of human energy dispersion.

Hooton, the caustic Harvard anthropologist, had a point when he observed that medical science, instead of starting at the autopsy table and working backward, logically should begin its studies with the healthy fetus and child, then work forward. This makes sense. It seems to me we are still proceeding backward. It is a most inefficient, illogical dissipation of national resources to be training more doctors, more nurses and building more badly planned hospitals for more and more sick, unhappy, fearful and inefficient aging human beings.

We are entirely missing the great opportunity to encourage aggressively the development and flowering of human potentials. There should be fewer sick people. Our present national policy is to encourage people to get sick. Apparently it excites our compassion. We encourage them to expect security. We retire many, just when they are most productive. There is desperate need for a complete and radical about-face in our entire national philosophy regarding our aging population.

Geriatrics, a term I dislike, has slow going. Doctors shun the aged. Our medical scientists today are much fascinated by the love-life of bacteria and the excursions of electrolytes but they walk by our aging brother and look the other direction. It is true that in practically every community there is a huge need for facilities to house and feed and protect those far spent in their life journey. Our greater opportunity, and here we must sharpen our tools, is in finding ways and means to improve the physical and mental fitness of our 40-, 50-, and 60-year-olds as

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[1] Guest speaker at the 16th Annual Dinner of the Devereux Foundation, during the 113th annual meeting of The American Psychiatric Association, May 13, 1957, Chicago, Ill.

[2] Address: 2021 West Girard Ave., Philadelphia 30, Pa.

they age; to study their performance, their opportunities and desires and particularly to keep them busy and strong; in other words to promote energetically their health potentials. There is a ferment over the land, as revealed by the creation of councils and committees on aging and mental health, which is encouraging evidence that the public is reaching out for help in its search for emotional balance and stability.

Congress has voted an initial 16 million dollars to support studies of aging alone and much more is available for mental health. Scientific psychiatry as it probes the psychodynamics of behavior is looming as the bright hope of a troubled world. There is also need for re-examination of social pathology with the newer techniques. We are sailing uncharted seas. It is a thrilling and exciting experience. The majority of medical problems have a dynamic psychic component. The time has come when general medicine and psychiatry now have a common meeting ground in the growing recognition of the mind as the measure of the man. We like to think of ourselves as rational beings. It was Benjamin Franklin, I think, who sagely observed that "the reasonable man is he who finds a reason for everything he wants to do."

Reason is usually influenced by feelings deeper than rational processes extend. Subconscious motivations exert their pressure. A healthy mind, socially focused, is the prime objective of medical practice. With passing time, from youth to age there should be a ripening, maturing sense of living.

Child guidance is an accepted procedure today. It was the psychiatrist early in the twentieth century who recommended freedom of expression for the young mind. In no way was the child to be denied the free play of all his random impulses. So we had the decades of the youth movement. The parent was subservient to the adolescent. Those in the later years were passive. And with the passage of time they became dependent on the adult children, a state of reverse responsibility. With this over-emphasis on youth there has been a cultural exclusion of the elderly. The older they grow the more isolated they tend to be. They become obsolescent just when they should be enjoying a greater recognition and prestige because of their maturity and social usefulness. What I want to emphasize is, that current practices and community customs depreciate the old. They in turn react by withdrawal from active pursuits. And the stage is set for the neuroses and depressions so common in the aged. With recession comes decay. Countless case histories attest the validity of this statement.

I believe an age movement is on the way which will supplement the youth movement.

With this new awareness it is possible to identify the precursors of disease. If we can estimate the physiological and psychological status of our older patients, and if we can increase their reserves there will be fewer premature breakdowns. We should, as a profession, endeavor to improve the stamina and fitness and thereby increase the capacity for performance and enjoyment of mature citizens. Merely curing the various ailments is a negative hit or miss, stop-gap practice which is woefully inefficient, expensive and unrealistic. Such a medical service falls far short in raising levels of community health. In brief, we as a profession, should become health-oriented rather than disease oriented. Concerning the potentials of our older citizens let us take from the altars of the past the fire and not the ashes.

BIOLOGICAL RHYTHMS

Studies of aging encompass the growth and development of the individual throughout the life span. Various tissues within the body have different time cycles for maturation, apparently determined by their particular usefulness to the body economy. Cowdry has shown that within a single body aging proceeds at different speeds. It is well known that practically all the tissues in the body are replaced by new material, molded in the same shape.

Gerontology is concerned with problems of growth, development and maturation, just as much as with atrophy, degeneration and decline. I see in the fascinating, continually changing processes constantly going on within the body, a balance and beauty and harmony. Human development, maturation

and aging follow a definite biological sequence. The unfolding of the life pattern, year after year, from childhood to the summit of maturity is a thing of beauty.

Nature has expressed herself in rhythmic patterns and balances. There are the recurring rhythms of the circulation, the digestive tract, of action and repose. In the mind world each of us has experienced alternating moods of elation and let-down. Warthin has emphasized the rhythm present in all aspects of human growth and development.

There appears to be a definite timetable for each tissue and organ not basically chronological, but a reflection of inherent vitality or the lack under adverse conditions. The life span of certain transient tissues, as the placenta, the ovaries and certain other glands is strictly limited. The life span of any particular body tissue differs from that of the body as a whole. There are certain tissues as described by Cowdry which are veritable fountains of youth. The cells of the bone marrow and certain cells within the eye might be classed as potentially immortal.

Few individuals attain the optimum span because of preventable human deterioration. It has been pointed out by Dr. Charles L. Dunham, Director of the Atomic Energy Commission Division of Biology and Medicine, that the early detection of tissue breakdown can now be made by radioactive isotopes pinpointing defects in the early stages. He thinks these deteriorations can be protected. For the first time scientists have an important new tool for studying growth, development and recession.

The radioactive isotope as a labelled tracer for studying the minutiae of intermediary metabolism, hormone and enzyme actions and the processes of cell regeneration, particularly of nerve cells, is a discovery of importance equal to that of the discovery of the microscope. This new procedure is already paying generous dividends. We now have at our command considerably more information of the requirements for healthy aging. It all adds up to a healthy body for many extra years. Enlarging biological patterns permits more opportunity for emotional, intellectual and spiritual growth.

A. J. Carlson commented on this when he pointed out that, at last we are approaching an era in which man lives long enough to have time to think. In thinking he grows, and in growing, lives. In other words, he can grow as he ages.

The major dominant in human development is concerned with emotional maturity. In an article entitled "The Third Side of Growth," presented some years ago by Earl Bond, certain ideas were offered which are of especial significance today. Briefly, he called attention to physical and intellectual growth as following a fairly well accepted sequence of development. To these he added a third phase, emotional growth and maturation as the dominant force within an individual. Bond outlined in that paper the goals which modern psychiatry is hoping to achieve in the field of mental health. He stressed self-reliance, productivity, flexibility, tolerance, moderation in mood, the ability to look ahead, the ability to live on the growing edge, religious orientation, and serenity. With years added to life there is more time available for growth. This is essential in order that a final vegetative existence be avoided. Maturity then, is a dynamic phenomenon, a continuation of growth as long as health and vitality exist. Present thought indicates that with health and vitality being preserved into the higher years more time for maturation becomes available.

In one of Bernard Shaw's essays, "Back to Methuselah," he makes the point that longer life is a necessity if mankind is to survive the present civilization. Much of the social illness today is the result of immature minds. Psychological maturity is defined as the master concept of our time in a popular best seller, *The Mature Mind,* by Overstreet. The maturity concept is central to the whole business of modern life. It offers a solution for the confusions and despairs of the present day. The American Psychological Association has carried on important researches in this field. Psychology is now weighing methods of research to define the criteria of maturity.

The growth timetable may be divided into certain specific categories each of which under favorable conditions progresses through a developmental period to full maturity.

Physical maturity is defined anatomically as that period when the epiphysis and diaphysis of the long bones of the body fuse permanently. Physical growth is then completed. In lower animals there is a fairly close relationship between the period required to attain full body growth and the life span of the animal. For example, in the dog it takes 2 years for the shaft of the long bones to unite and the average span of life is 12 years, for the cat 1½ years and the average span of life is 9 to 12 years. A horse requires 2½ to 3 years for physical maturity and lives approximately six times three or 18 years.

If the human body attains physical maturity at approximately 25, the average span of human existence should approximate 125 to 150 years. Physical maturity is a relatively simple phenomenon and all that is required today is a well-balanced nutritional program and unimpeded opportunity for normal growth.

Intellectual growth is systematized by our school systems. Progression from one grade to another in regular sequence may be followed through college into areas of research. Intellectual maturity is attained by a fully prescribed educational program. A high degree of literacy is a mark of an advanced culture.

For emotional growth there is not the well systematized progression which the schools furnish for intellectual development. This third phase of growth should proceed to emotional maturity described as the master concept of our time. Finally, spiritual maturation is characterized by understanding, tolerance, wisdom, and religious orientation.

The growth timetable for these components of human existence are not parallel. While there is overlapping, physical maturity would seem to be followed by intellectual, emotional, and finally spiritual fulfillment. Under optimum conditions, the growth of these interdependent components should enhance the maturation of the individual.

RECHARGE MECHANISMS

To offset the diffusion of energy as time passes, the human body has an amazing capacity to renew itself. As Kubie points out, the animal body is the only machine which has a built-in replacement system, its own self-replenishing devices. In its rhythmic, changing dynamics each cell, each molecule is renewing itself, and continues even under mounting adverse conditions. Resistance to deterioration is revealed in the recuperation processes of all body cells. Experimentally seven-eighths of the liver can be removed from an experimental animal and the organ will recreate itself. An animal can be rendered diabetic by overloading with glucose or by alloxan. When the noxious agent is removed the cells return to normal, provided the insult has not lasted too long.

By attention to diet the life span of experimental animals can be doubled. Their vitality and sex potency can be preserved to an equivalent of an 85-year old woman. Homeostatic mechanisms, freed of overloading and exhaustion can maintain balanced function far beyond the average time.

What interferes with this self perpetuating mechanism within each cell? What are the barriers to healthy aging? Suppose science solves the riddle of arteriosclerosis, cancer and nervous exhaustion? There is already exciting evidence that we are on the verge of the control of these diseases.

Numerous observers have estimated that man uses only a small portion of his physical and mental powers. If we control the diseases and deteriorations of human tissues, a fantastic future awaits us. As Kubie writes, we are at the frontier of an exciting new existence.

It is not the muscle man society needs today. If medicine is concerned with more than man's physical ailments, then the mental disorders, hopes, fears and yearnings which reveal the values each individual cherishes—these are the concerns not exclusively of psychiatry, but of the entire profession.

The new fields of psychodynamics and analysis have brought out into the open hidden purposes behind behavior. The driving forces of the individual are now coming within the sphere of objective study. These techniques are capable of revealing the barriers to man's emotional maturation.

THE SEARCH FOR DESIGN

The changing fabric of society as it reflects the impact of more and more older people is creating many vexing problems which defy traditional methods of solution. It is a curious paradox which science has created. The life span is certainly, if slowly, increasing. Citizens in the future may ordinarily live 100 years. We already have the know-how to eliminate many nuisance disorders by promoting fitness. In fact, we might well inquire at this time, what are the basic needs of each of us as we grow into the later years? I believe the three most necessary essentials are first, an adequate but limited food supply; second, the control of exhaustion; and third, a high specific motivation. These promise fitness for survival, and an enjoyable and sociable experience. Around each need there should be a generous margin of reserve. These aspects of biological experience, growth, maturation and aging are now capable of reasonably accurate measurements.

In his address as the retiring president of the American Association for the Advancement of Science in 1956, Beadle stated that man's evolutionary future, biologically and culturally is unlimited. But, far more important, it lies within his power to determine its course. Man is potentially capable of self direction. He could, to a much greater extent than he now does, consciously select his cultural objectives. He could, although he has not yet recognized it, control his own biological future. He is now in a position to transcend the limitations that for so long have set his course. Beadle shows that to obtain biological and cultural freedom, knowledge, collective wisdom and courage, plus faith are required. In his uniqueness man is capable of attaining heights far greater than his most magnificent cultural achievements of the past.

In our increasing understanding of nuclear energy it is now known that there are hidden forces of undreamed of power within each human body and mind. In fact, atomic theory describes the atom as vibration. It can be interpreted as music, atomic energy can be equated in musical harmonies. In this way all matter is related. It in reality has religious significance. For, if energy is indestructible, then human beings continue to exist albeit in different phases.

Shelley had this in mind when, in his poem "The Cloud," the rain drop speaks:

"I am a daughter of the earth and a nursling of the sky;
I pass through the pores of ocean and shores,
I change, but I cannot die."

Above the daily routine world we are participants in a great social experience. In the presence of the awesome power now revealed to us in this atomic age, may we attain the wisdom to utilize the newly available energy so that our fellow man may walk on higher ground.

PERCEPTION AND INTERPERSONAL RELATIONS [1]

HADLEY CANTRIL [2]

It is with a very profound feeling of humility that I, as a psychologist, offer any comments for the consideration of psychiatrists on the subject of perception and interpersonal relations. For the more one studies perception, the more one sees that what we label "perception" is essentially a process which man utilizes to make his purposive behavior more effective and satisfying, and that this behavior always stems from and is rooted in a personal behavioral center. Thus perception involves numerous aspects of behavior which we rather artificially and necessarily differentiate in order to get a toe-hold for understanding, but which, in the on-going process of living, orchestrate together in a most interdependent way.

This means, then, that the nature of perception can only be understood if somehow we manage to start off with what some of us call a "first person point of view" as contrasted to the "third person point of view" represented by the traditional psychological investigator. And so my very genuine feeling of humility in accepting an invitation of psychiatrists derives from the fact that the psychiatrist, perhaps more than any other specialist concerned with the study of human beings, is primarily concerned with the first-person point of view, is skilled in the art of uncovering what this may be for his patient, and knows from his own experience the wide gap that exists between this first-person experience and the abstractions we have created as scientists in order to analyze, conceptualize, and communicate. A very nice expression of this last state of affairs was, incidentally, recently made by Aldous Huxley in his book *The Genius and the Goddess:*

> "What a gulf between *im*pression and *ex*pression! That's our ironic fate—to have Shakespearian feelings and (unless by billion-to-one chance we happen to *be* Shakespeare) to talk about them like automobile salesmen or teen-agers or college professors. We practice alchemy in reverse—touch gold and it turns to lead; touch the pure lyrics of experience, and they turn into the verbal equivalents of tripe and hogwash."

BACKGROUND

Most of you are probably familiar to some extent with a point of view that has developed rather recently in psychology and has been dubbed "transactional psychology." While I do not want to spend time here repeating what has been published in a variety of sources, I might at least very briefly note some of the major emphases of transactional psychology before discussing certain aspects and some experimental results which may be of particular interest to psychiatrists (1, 2, 3, 4).

Here, then, are some of the emphases of transactional psychology which may give us a take-off for discussion:

Our perception depends in large part on the assumptions we bring to any particular occasion. It is, as Dewey and Bentley long ago pointed out, not a "reaction to" stimuli in the environment but may be more accurately described as a "transaction with" an environment.

This implies that the meanings and significances we assign to things, to symbols, to people, and to events are the meanings and significances we have built up through our past experience, and are not inherent or intrinsic in the "stimulus" itself.

Since our experience is concerned with purposive behavior, our perceptions are learned in terms of our purposes and in terms of what is important and useful to us.

Since the situations we are in seldom repeat themselves exactly and since change seems to be the rule of nature and of life, our perception is largely a matter of weighing probabilities, of guessing, of making hunches concerning the probable significance or meaning of "what is out there" and of what our reaction should be toward it, in order to protect or preserve ourselves and our satisfactions, or to enhance our satisfac-

[1] Read at the A.P.A. Regional Meeting in Montreal, Nov. 8-11, 1956.

[2] Address: Institute for International Social Research, 240 Nassau Street, Princeton, New Jersey.

tions. This process of weighing the innumerable cues involved in nearly any perception is, of course, a process that we are generally not aware of.

CREATING CONSTANCIES

Since things in the world outside us—the physical world and more especially the social world—are by no means static, are not entirely determined and predictable, experience for most of us often carries at least some mild overtone of "concern" which we can label "curiosity," "doubt" or "anxiety" depending on the circumstances involved.

One of my favorite illustrations of this point is an incident described by Carl Sandburg in his autobiography, *Always the Young Strangers.*

> "I have always enjoyed riding up front in a smoking car, in a seat back of the 'deadheads,' the railroaders going back to the home base. Their talk about each other runs free. . . . Once I saw a young fireman in overalls take a seat and slouch down easy and comfortable. After a while a brakeman in blue uniform came along and planted himself alongside the fireman. They didn't say anything. The train ran along. The two of them didn't even look at each other. Then the brakeman, looking straight ahead, was saying, 'Well, what do you know today?' and kept looking straight ahead till suddenly he turned and stared the fireman in the face, adding, 'For sure.' I thought it was a keen and intelligent question. 'What do you know today—for *sure*?' I remember the answer. It came slow and honest. The fireman made it plain what he knew that day for sure: 'Not a damn thing!' . . ."

Thus we seldom can count on complete 100% surety in terms of a perfect correspondence between our assumptions concerning the exact experience we may have if we do a certain thing and the experience we actually do have as the consequence of the action we undertake.

In an attempt to try to minimize our potential lack of surety concerning any single occasion and thereby maximize our sense of surety concerning the effectiveness of our action in achieving our intent, we build up "constancies" and begin to count on them. While a great deal of experimental work has been done on "constancies" in the psychological laboratory, we still have much more to learn. And above all, we have a great deal to learn about constancy as we extend this concept into the field of our interpersonal relations.

Parenthetically, one of the most important things we have to learn is that the "constancy" we create and that we describe usually by means of some word, symbol, or abstract concept *is* man's creation, the validity of which can only be tested and the meaning of which can only be experienced in terms of some behavior which has consequences to us and signals to us what the concept refers to.

We create these constancies by attributing certain *consistent* and *repeatable* characteristics to what they refer to, so that we can guess with a fair degree of accuracy what the significances and meanings are of the various sensory cues that impinge upon us. We do this so that we will not have to make fresh guesses at every turn.

These significances we build up about objects, people, symbols, and events, or about ideas all orchestrate together to give us what we might call our own unique *"reality world."* This "reality world" as we experience it includes, of course, our own fears and hopes, frustrations and aspirations, our own anxiety and our own faith. For these psychological characteristics of life—as the psychiatrist knows better than anyone else—are just as real for us in determining our behavior as are chairs, stones or mountains or automobiles. It seems to me that anything that takes on significance for us in terms of our own personal behavioral center *is* "real" in the psychological sense.

ASSIGNING SIGNIFICANCES

Let me illustrate with reference to a few recent experiments the way in which the significance we attach to others "out there" seems to be affected by what we bring to the situation. Incidentally but important: I do want to underscore that the experiments mentioned here are only exploratory; are only, I believe, opening up interesting vistas ahead. I am in no sense attempting to indicate what their full theoretical implications may be. But I mention them to show how experiments designed to get at the first person point of view may suggest to the experienced psychiatrist ways of using experimen-

tal procedures in his diagnosis and possibly even in therapy. And I also mention them because of my deep conviction that psychology can be both humanistic and methodologically rigorous.

A whole series of most promising experiments now seems possible with the use of a modern adaptation of an old-fashioned piece of psychological equipment, the stereoscope. Dr. Edward Engel who devised the apparatus has already published a description of it and reported some of his first findings(5). As you know, the stereoscope in a psychological laboratory has been used to study binocular rivalry and fusion but the material viewed almost always consisted of dots and lines or geometrical patterns. Engel was curious to see what would happen if meaningful figures were used instead of the traditional material.

The results are really most exciting. In Engel's experiments he prepares what he calls "stereograms" consisting of photographs 2×2 inches, one of which is seen with the left eye, the other with the right. The photographs he used first were those of members of the Princeton football team just as they appeared in the football program. Although there were slight differences in the size and position of the heads and in the characteristics of light and shadow, still there was sufficient superimposition to get binocular fusion. And what happens? A person looks into the stereoscope and sees one face. He describes this face. And it almost invariably turns out that he is describing neither the face of the man seen with the left eye nor the face of the man seen with the right eye. He is describing a new and different face, a face that he has created out of the features of the two he is looking at. Generally the face seen in this particular case is made up of the dominant features of the two individuals. And generally the face created by the observer in this situation is more attractive and appealing than either of those seen separately. When the observer is shown the trick of the experiment by asking him to close first one eye and then the other and to compare the face he originally saw with the other two, he himself characterizes the face he created as more handsome, more pleasant, a fellow he'd like better, etc.

I hasten to add, however, that we should by no means jump to the conclusion that an individual picks out the "best" or "most attractive" features of figures presented to him in a situation of binocular fusion. For example, Professor Gordon Allport recently took one of Engel's stereoscopes with him to South Africa and initiated some experimental work there, using photographs of members of the different racial groups which make up that complex community.

While the experiments in South Africa have only just begun and no conclusion should be drawn, it is significant to note that in recent letters communicating the early results, Allport reported that when the stereograms consist of a European paired with an Indian, a colored person compared with an Indian, etc. the Zulus see an overwhelming preponderance of Indians. For the Zulu is most strongly prejudiced against the Indian who represents a real threat to him. Allport also reports that when Europeans in South Africa view the stereogram they tend to see more colored faces than white. It would seem, then, that a person sees what is "significant," with significance defined in terms of his relationship to what he is looking at.

One pair of slides we use in demonstrating this piece of equipment consists of two stereograms, each a photograph of a statue in the Louvre. One of the statues is that of a Madonna with Child, the other a lovely young female nude. While I am unable so far to predict what any given individual will "see," no doubt such a prediction might be made after some good psychiatric interviewing. But let me describe what happened in a typical viewing of these stereograms. The viewers happened to be two distinguished psychologists who were visiting me one morning, one from Harvard, the other from Yale. The first looked into the stereoscope and reported that he saw a Madonna with Child. A few seconds later he exclaimed, "But my God, she is undressing." What had happened so far was that somehow she had lost the baby she was holding and her robe had slipped down from her shoulders and stopped just above the breast line. Then in a few more seconds she lost her robe completely and became the young nude. For this particular professor, the nude never did get

dressed again. Then my second friend took his turn. For a few seconds he could see nothing but the nude and then he exclaimed, "But now a robe is wrapping itself around her." And very soon he ended up with the Madonna with Child and as far as I know still remains with that vision. Some people will never see the nude; others will never see the Madonna if they keep the intensity of light the same on both stereograms.

In the situation described above, we do not have conditions for genuine fusion, but rather a condition which introduces conflict and choice in the possible meaning of the content represented. In order to learn whether or not there might be differences in choice that would be culturally determined, a cross cultural comparison was made by Dr. James Bagby(6). He constructed pairs of stereograms that would create binocular rivalry: in one stereogram of each pair he had a picture of some individual, object or symbol that would be of particular interest to Mexicans; in the other stereogram he had a picture that would be of particular significance to Americans. For example, one pair of slides consisted of a picture of a bull fighter matched with a stereogram picturing a baseball player. When these pairs were shown to a sample of Mexican school teachers, an overwhelming proportion of them "saw" the Mexican symbol; when the same slides were presented to a group of American school teachers, the overwhelming proportion "saw" the American symbol.

Incidentally, the Engel stereoscope is so constructed that one can get some idea of the relative "strength" of each of the stereograms by adjusting the intensity of the lighting on each. Hence, if the lighting is equivalent on two stereograms in a rivalry situation, one can reduce the amount of lighting on the one that originally predominates, increase the amount of light on the one that was not "seen" and find the point where the first one disappears and the second one "comes in."

A modification of the stereoscope has just been completed by Mr. Adlerstein in the Princeton laboratory. Our thought was that it might be extremely useful both in the clinical and social areas, if instead of having to use photographs of objects or people, a person could view the real thing—that is, the faces of real, live individuals or pairs of actual objects. So by means of prisms and mirrors, this device was constructed and I have only very recently had the opportunity of experiencing the resulting phenomena. I must say it is strange and wonderful. For example, when I viewed Mr. Adlerstein and Mrs. Pauline Smith, Curator of our Demonstration Center, I seemed to be looking at a very effeminate Mr. Adlerstein who was wearing Mrs. Smith's glasses. Though weird, he was extremely "real." At one point while I was observing them Mrs. Smith began to talk yet it was Adlerstein's lips that were moving! Tingling with excitement and with a certain amount of anxiety, I drove home and asked my wife and daughter to come down to the laboratory so that I could take a look at them. I was, of course, fearful that I might see only one or the other. But fortunately, again I got an amazing fusion—a quite real and lovely head composed of a blending of my daughter's hair and chin and my wife's eyes and mouth—an harmonious composition that would do justice to any artist and which I created almost instantaneously and without any awareness of what was going on. These pieces of apparatus seem to me to have enormous potential usefulness for studying the way in which we create the world around us. I am hoping, for example, that before long someone in a position to do so may use this sort of equipment in a study of disturbed children. The child—having two eyes and two parents—might in some situations and in a very few seconds reveal a good bit about his inner life and his interpersonal family relations.

An interesting series of experiments on perception and interpersonal relations began systematically a few years ago after an observation I made one Sunday morning in our laboratory. An old friend of mine, who was a distinguished lawyer in New York and has since died, called me at home to say that he and his wife had been in town for the weekend and would I be willing to show them some of the Ames' demonstrations about which he had heard. It is important for this story to emphasize the fact that the gentleman in question was really a most unusual man in terms of his ability, charm,

accomplishments, and his devotion to his family and friends.

Many of you are familiar, I am sure, with the "distorted room" designed by Adelbert Ames, Jr. which produces the same image on the retina as a regular square room if it is viewed monocularly from a certain point. Since the room is seen as square, persons or objects within the room or people looking through the windows become distorted. I had shown this room to hundreds of individuals and among other phenomena had demonstrated that when two people look through the back windows, the head of one individual appeared to be very large, the head of the other to be very small. When the individuals reversed the windows they were looking through, the size of their heads appeared to the observer to change. But on this Sunday morning when my friend's wife was observing him and me, she said, "Well, Louis, your head is the same size as ever, but Hadley your head is very small." Then we changed the windows we were looking through and she said, "Louis, you're still the same, but Hadley you've become awfully large." Needless to say this remark made a shiver go up my spine and I asked her how she saw the room. It turned out that for her —unlike any other observer until then—the room had become somewhat distorted. In other words, she was using her husband—to whom she was particularly devoted—as her standard. She would not let him go. His nickname for her was "Honi" and we have dubbed this the "Honi phenomenon."

This observation was followed systematically in a series of experiments on married couples by Dr. Warren Wittreich. He found that if couples had been married less than a year there was a very definite tendency not to let the new marital partner distort as quickly or as much as was allowed by people who had been married for a considerable time(7). But, again, I hasten to add that it is not a simple matter of how long one has been married that determines how willing one is to distort the size or shape of one's marital partner! The original observation was made on a couple who were already grandparents. Preliminary investigation also seems to show that parents of young children will not allow their children to distort as readily as will parents of older children.

We could continue at some length reporting experiments which seem to show that what we "perceive" is, as already emphasized, in large part our own creation and depends on the assumptions we bring to the particular occasion. We seem to give meaning and order to sensory impingements in terms of our own needs and purposes and this process of selection is actively creative.

SOCIAL CONSTANCIES AND SELF-CONSTANCY

It is clear that when we look for constancies in other people either as individuals or as members of a group a variety of complications is introduced. For when people are involved, as contrasted to inorganic objects or most other forms of life, we are dealing with purposes, with motives, with intentions which we have to take into account in our perceptual process—the purposes, motives and intentions of other people often difficult to understand. The purposes and intentions of these other people will, of course, change as conditions change; and they will change as behavior progresses from one goal to another. Other people's purposes will be affected by our purposes, just as our purposes will be affected by theirs.

It is by no means a quick and easy process, then, to endow the people with whom we participate in our interpersonal relations with constancies and repeatabilities that we can always rely on. And yet we must, of course, continue the attempt to do so, so that our own purposeful action will have a greater chance of bringing about the satisfying consequences we intended. So we try to pigeonhole people according to some role, status, or position. We create constancies concerning people and social situations. These provide us with certain consistent characteristics that will ease our interpretation and make our actions more effective so long as there is some correspondence between the attribution we make and the consequence we experience from it in our own action.

The "social constancies" we learn obviously involve the relationships between ourselves and others. So if any social constancy is to be operational, there must also be a

sense of "self-constancy." The two are interdependent. Since the human being necessarily derives so much of his value satisfaction from association with other human beings, his conception of his "self," his own "self-constancy" and "self-significance" is determined to a large extent by the significance he has to other people and the way they behave toward him. This point is, of course, a familiar one to the psychiatrist and has been eloquently illustrated in literature as, for example, in Shaw's *Pygmalion*.

But it seems to me of paramount importance in any discussion of perception and interpersonal relations that we should not slip into the error of positing an abstract "self" or "ego" that can somehow be isolated, pointed to, analyzed, or experienced apart from any social context. It is only through the life setting and the process of participation with others that meaning and continuity are given to the "self." If the constancy of "self" is upset, it becomes difficult for us to assess changes in our interpersonal relations and accommodate to them. We lose the compass that keeps us going in a direction. "We" are lost.

This does not mean in any sense that for self-constancy to be maintained there can be no development or growth. On the contrary, self-development and growth are themselves aspects of social constancy. But this development must, as the psychiatrist knows better than anyone, flow from form if it is to be recognized, if there is to be continuity, and if there is to be a standard for comparison. Obviously, each of us surrounds himself with anchoring points of one kind or another which help to maintain this self-constancy in the process of ceaseless change around us. In this connection I think, for example, of Konrad Lorenz' interpretation of why people like dogs. In his book *King Solomon's Ring*, he writes that we should "not lie to ourselves that we need the dog as a protection for our house. We *do* need him, but not as a watch-dog. I, at least in dreary foreign towns, have certainly stood in need of my dog's company and I have derived, from the mere fact of his existence, a great sense of inward security, such as one finds in a childhood memory or in the prospect of the scenery of one's own home country, for me the Blue Danube, for you the White Cliffs of Dover. In the almost film-like flitting-by of modern life, a man needs something to tell him, from time to time, that he is still himself, and nothing can give him this assurance in so comforting a manner as the 'four feet trotting behind.'"

This interdependent problem of social constancy and self-constancy has been submitted to some preliminary investigation. For example, when a person is wearing a pair of aniseikonic spectacles, which greatly distort the shape of the environment when familiar monocular cues are ruled out, he will generally see another person as distorted if that person is standing in an environment which has itself already become distorted. With a certain pair of these spectacles, for example, an individual will be seen as leaning forward with the upper and lower half of his body distorted in length. Dr. Wittreich set up such a situation at the Naval Training Center at Bainbridge, Maryland to see what might happen when the relationship of the person who was doing the viewing and the person being viewed was altered. His subjects were 24 white male Navy recruits. They first observed an authority figure dressed up as a first class petty officer and, second, a non-authority figure dressed up in a white enlisted uniform with the marks of a recruit. Wittreich found that the authority figure did not distort nearly as much as the non-authority figure. In other words, the disciplinary training imposed in an organization that depends for effective functioning on the rigid acceptance of roles had produced a "constancy" which overpowered physiological changes in the optical system.

Another finding using the aniseikonic spectacles may be of interest to psychiatrists: namely, that a person tends to report much less distortion of his own image when he looks at himself in a full-length mirror while wearing aniseikonic spectacles than he reports when he is looking at a stranger. When one looks at one's self, the changes that appear seem to be minor and detailed—for example, slight distortions in the hands or feet; when one looks at a stranger, there is the more general bodily distortion plus the

leaning one way or another, depending on the kind of spectacles used.

A subsequent study by Wittreich and one which I emphasize is only suggestive, was made comparing 21 subjects obtained from the patient roster of the neuro-psychiatric unit at the Bethesda Naval Hospital. When these disturbed individuals were wearing aniseikonic spectacles and saw their own image in the mirror, they tended to see the gross distortions that the "normal" population attributed to others; and, conversely, when the disturbed clinic population looked at others, they tended to see the more detailed and minor distortions which the "normal" population had seen in themselves. All I should like to conclude about this particular experiment so far is that there seems to be some difference between the normal individual and the clinical patient in the functional importance assigned to his bodily image; the patient may conceivably be operating in terms of a relatively fixed and homogeneous image of himself which does not alter readily with the demands of the environment.

PERCEPTUAL CHANGE

Laboratory experimentation as well as research in the field of opinion and attitude change seems to demonstrate beyond a shadow of a doubt that the major condition for a change in our perception, our attitudes or opinions is a frustration experienced in carrying out our purposes effectively because we are acting on the basis of assumptions that prove "wrong." For example, Dr. Kilpatrick has demonstrated that apparently the only way in which we can "learn" to see our distorted room distorted is to become frustrated with the assumption that the room is "square" in the process of trying to carry out some action in the room(8). It is clear that an "intellectual," "rational," or "logical" understanding of a situation is by no means sufficient to alter perception. The psychotherapist has taught us how successful reconditioning requires a therapy which simplifies goals so that their accomplishment can be assured through an individual's action as he experiences the successful consequences of his own behavior and thereby rebuilds his confidence in himself.

In this connection I recall a conversation I had in 1948 in Paris with an extremely intelligent woman who was at that time a staff member of the Soviet Embassy in Paris. We were at some social gathering and she began to ask me about American elections and the two-party system. She just couldn't understand it. She wasn't trying to be "smart" or supercilious. She was simply baffled. She couldn't "see" why we had to have 2 parties. For, obviously, one man was better than another and why wasn't he made President and kept as President as long as he proved to be the best man? It was a difficult argument for me to understand, just as my argument was impossible for her to understand. It was much more than a matter of opinion, stereotype or prejudice on either side. We were simply living in different reality worlds, actually experiencing entirely different significances in happenings which might appear to "an objective" "outside" observer to be the same for both of us.

Parenthetically, while one of the outstanding characteristics of man is often said to be his amazing capacity to learn, it seems to me that an equally outstanding characteristic is man's amazing capacity to "unlearn" which is, I think, not the exact opposite. Because man is not entirely a creature of habit, he has the fortunate ability to slough off what is no longer of use to him.

THE REALITY OF ABSTRACTIONS AND THE COMMONNESS OF PURPOSES

In order to ease our interpersonal relations and to increase the commonness of the significances we may attribute to the happenings around us, man has created abstractions in his attempt to bring order into disorder and to find more universal guides for living no matter what the unique and individual purposes and circumstances of an individual may be. Such abstractions are represented by our scientific formulations, our ethical, political, legal and religious systems. The abstractions can be recalled and repeated at will. They can be communicated. They are repeatable because they are static and have fixed characteristics.

The value of these abstractions for us in our interpersonal relations seems to be that

when the tangibles of our personal reality world break down, we can turn to the intangible—to the abstractions we have learned that have been created by others and have presumably proved useful to them. We can begin to check our own particular situation, possibly a frustrating one, against the abstraction and thereby, perhaps experience for ourselves what the abstraction is referring to. Only then will the abstraction become real for us. For when it does become functional for us in our own individual lives, it *is* real as a determinant of our experience and behavior.

I will close this discussion of perception and interpersonal relations with a story which seems to sum a good deal of what I have been talking about. The story concerns three baseball umpires who were discussing the problems of their profession. The first umpire said, "Some's balls and some's strikes and I calls 'em as they is." The second umpire said, "Some's balls and some's strikes and I calls 'em as I sees 'em." While the third umpire said, "Some's balls and some's strikes but they ain't nothin' till I calls 'em."

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EXPERIENCE WITH PHOTIC STIMULATION IN PSYCHIATRIC RESEARCH [1, 2]

GEORGE A. ULETT, M.D.[3]

In a search for physiological factors underlying those mental disorders currently classified as ". . . without clearly defined physical cause . . ." an intermittent photic stimulus has been used in conjunction with electroencephalographic recording. Such an investigative technique permits a study of the brain in action—responding to a stimulus—in contrast with investigations of the brain at rest. This approach has seemed promising for the study of behavioral disorders where symptoms may be the result of a dysfunctioning brain. (A discussion of preliminary work with this method(21) and a review of the recent literature(3) are available.)

Our initial observations had suggested that subjects, considered by psychological and psychiatric observation to show borderline adjustment or frank maladjustment, displayed a greater brain wave driving response when stimulated by frequencies of 20 to 30 f.p.s. than by frequencies under 20 f.p.s., and showed a marked harmonic response to stimulation in the 10 to 15 f.p.s. band. We pursued this lead with another study of 191 subjects(26). By utilizing an electronic brain wave analyser it was possible to quantify the electroencephalographic response of the subjects to flicker at 24 frequencies of light stimulation ranging from 3 to 30 f.p.s. The past and present history of symptoms suggesting anxiety or behavioral maladjustment of all subjects were studied and each subject was given a rating of proneness to develop anxiety under stress. This "anxiety-proneness" rating was found to be significantly correlated with 1:1 and/or harmonic response to flashing light at frequencies above the alpha range. This finding seemed in accord with reports in the literature of an increased amount of fast activity in the basic resting electroencephalographic patterns of patients with anxiety reactions. It appeared that a latent tendency to such fast activity was indicated by the induction of a strong driving response by the appropriate fast frequency of photic stimulation. In similar thought, the evocation of a paroxysmal response at a subharmonic of the light stimulus in some epileptics has been reported as indicative of a latent tendency to slow activity by Mundy-Castle(15). A second sample of 117 patients however, was run in like fashion and although the photic driving response at both high and low frequencies tended to be greater among the anxiety prone, the discriminating value of the test in this sample now lacked statistical significance. The relationship of cortical response to photic stimulation and anxiety is at this time an unsettled question.

In both of the above studied groups however, there was seen, in anxiety-prone individuals, a significantly greater amount of subjective dysphoria, visceral sensations and/or anxiety during exposure to photic stimulation. This, in our experience, is not an unusual occurrence during such stimulation(20) and may, in some persons, seem to reactivate symptoms, often of a neurotic nature, that have been experienced in the past. The use of an intermittent photic stimulus as a provocative test for such sensations in the screening of military personnel for the selection of anxiety-prone subjects was explored with some success in our control population. Further study and evaluation of these observations is presently being undertaken on a group of some 1,500 air cadets whose subsequent careers and exposure to stress in military situations can be followed(18).

[1] Read at the 112th annual meeting of The American Psychiatric Association, Chicago, Ill., April 30-May 4, 1956.

[2] The studies mentioned in this report were completed under Air Force Contracts 33(038)-13884 and 18(600)-927 of a series under R and D Project 21-37-002, Division of Psychiatric Screening of Flying Personnel, Department of Clinical Psychology, U. S. Air Force School of Aviation Medicine, and through research grants from the National Institute of Mental Health of the National Institutes of Health, U. S. Public Health Service.

[3] Department of neurology and psychiatry, Washington University School of Medicine, and research laboratories of Malcolm Bliss Psychiatric Hospital, St. Louis, Mo.

The use of field performance was felt to be the only practicable validating criterion of the selective value of this method for use in a military screening battery. This conclusion was reached when, in an attempt to increase the validity of our psychiatric-psychologic anxiety-proneness rating, we introduced in place of one, two experienced board certified clinical psychiatrists only to find that their agreement upon both anxiety-proneness and maladjustment ratings in a control population was very poor(6).

Other investigators have explored this area of relating photic stimulation to personality variables. Blum(1) reported an EEG response to photic stimulation that was characteristic of schizophrenics and patients with organic brain syndrome that was not seen in "normal" controls. Shagass(19) used the EEG response to photic stimulation to differentiate between patients showing either mainly anxiety symptoms or depression. He compared the response to 15 and 10 flashes per second and found a greater response at the faster frequency in those subjects with anxiety. Further observations in his laboratory suggested that in persons repeatedly tested, the driving response would fluctuate from day to day with changes in mood and that the driving response at 15 flashes per second was highest during times of anxiety or annoyance. Such fluctuation of the driving response with transient mood change was in the opposite direction to that found in our studies where a test situation (23) that was frustrating, annoying and often anxiety provoking, produced in most subjects a temporary decrease in the driving reaction to 14 flashes per second which increased again when the experimental anxiety producing stimulus was withdrawn. The differences were not clearly seen in all individuals however, and the experimental situation could not be said to produce purely an anxiety response in all persons.

There is certainly a need for more basic knowledge regarding this phenomenon of photic driving. There has, for example, been presented no careful profile analysis of the photic driving response taken over a period of weeks or months to note the consistency of response at different frequencies. Such a study is basic to the selection of the best stimulus frequencies for correlative studies of fluctuations in driving with mood or psychic phenomena. To begin work in this area we have plotted the electronically analysed EEG driving profiles of 171 subjects stimulated at 24 different flicker frequencies. The median driving curve and first and third quartile curves for the group are shown (Fig. 1). The marked difference among individuals is shown by the wide range indicated here.

To study the stability of the driving measure we are repeating the procedure on a selected group of 50 subjects at spaced intervals two to three times a year for a 3-year period. Preliminary analysis of data on 12 subjects reveals that the shape of the driving curve is generally consistent for one individual from time to time with an average intraclass correlation of .67 with the range of correlations from .10-.84 for the 3 trials. However the amount of total driving (*i.e.*, "energy") of the response is more variable, showing an intraclass correlation of only .46. Both of these correlations would occur by chance less than 1 time in 100. The curves of two subjects indicating the driving profile as seen on 3 different occasions are shown as an example (Figs. 2 and 3). Figure 4 illustrates a subject in whom both profile and amount of response varied over the 3 trials. A complete report of this work is in progress.

In an earlier study(12) we compared and found relationships between color, movement and FK responses on the Rorschach and similar subjectively experienced color, movement and depth or vista sensations experienced during exposure to intermittent photic stimulation. A relationship was also found between simple and limited descriptions of the flicker induced sensations and a Rorschach perceptual style that has been designated as suggestive of rigidity in the personality structure(8).

Specific ability of certain frequencies to produce both physiological and psychological phenomena and to reproduce clinical symptomatology is, although unexplained, of great interest. Lovett Doust(11) has shown that shifts in blood oxygen saturation tend to occur at certain specific frequencies of photic stimulation. Walter(30) earlier described, and we have noted time and again, that for

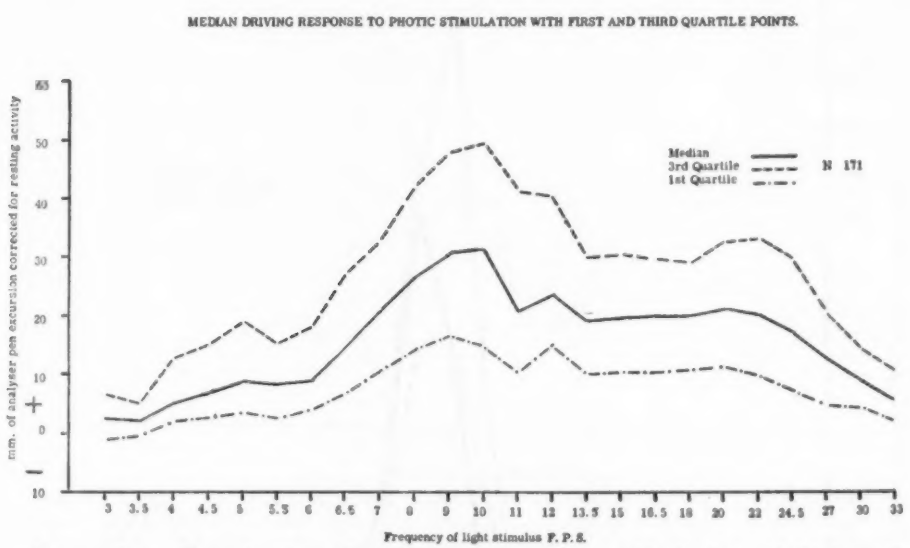

FIG. 1.—Curves illustrating the median driving response together with the first and third quartile points of 171 subjects tested at 24 frequencies of photic stimulation. The data are based on electronic EEG analyser summations of the Rt. Parieto-occipital lead combinations during 40 consecutive seconds of stimulation at each frequency.

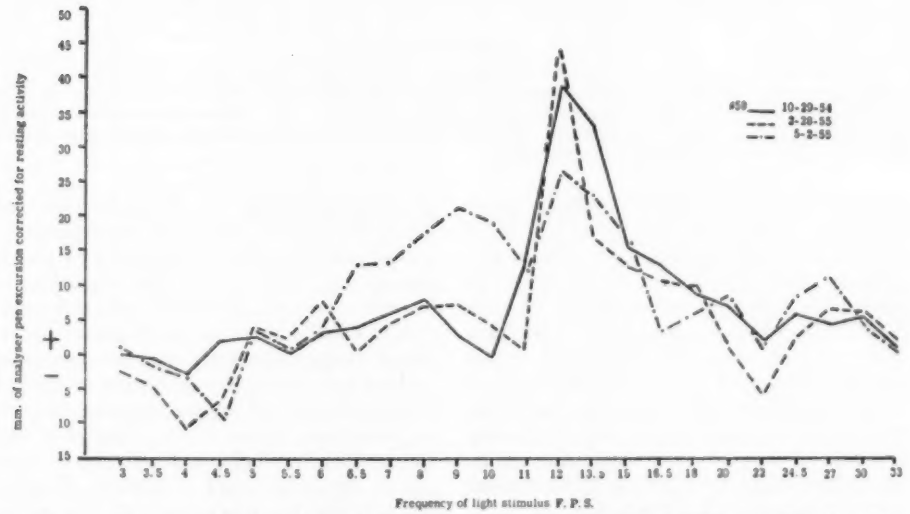

FIG. 2.—Curves made from electronically analysed Rt. Parieto-occipital EEG recording data illustrating the profile of EEG driving response to stimulation at each of 24 different frequencies of light stimulus presented to control subject #59 on 3 separate occasions. This subject was a male student, 22 years of age with a normal resting EEG and no personal or family history of neuropsychiatric disturbance.

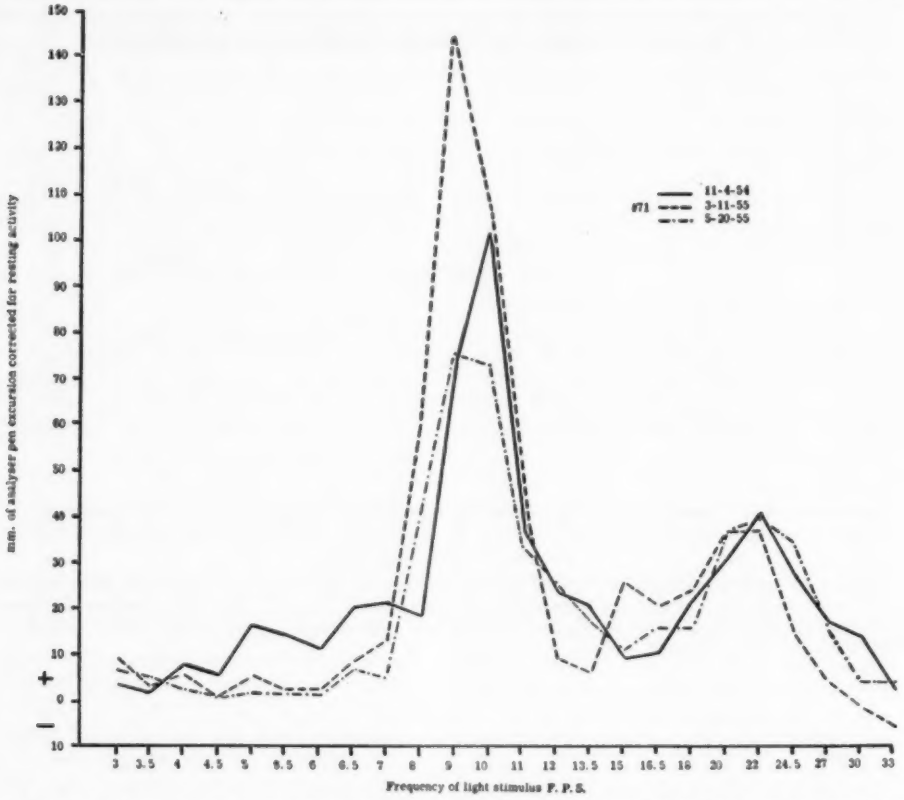

FIG. 3.—Curves made from electronically analysed Rt. Parieto-occipital EEG recording data illustrating the profile of EEG driving response to stimulation at each of 24 different frequencies of light stimulus presented to control subject #71 on 3 separate occasions. This subject was a male student 22 years of age with a normal resting EEG. The only positive item in his neuropsychiatric examination was a possible febrile convulsion in childhood.

some individuals subjective dysphoria, myoclonus or paroxysmal activity in the EEG would occur only, or mainly, at certain frequencies, and at times to a lesser degree at related harmonics or subharmonics of such frequencies. Mundy-Castle(16) reported a case in which photic stimulation at certain critical frequencies produced both irregular slow bursts in the EEG and visual hallucinations related to past experiences. Following a course of insulin coma treatments photic stimulation elicited neither the hallucinations nor the abnormal EEG changes.

Similarly a specificity of stimulus frequency or elicitation of response by frequencies within a limited band has been seen in selected epileptics. Those individuals who do not have evident convulsive disorder, but whose EEG can be induced to show paroxysmal activity at certain frequencies of photic stimulation, raise speculation regarding a lowered convulsive threshold and predisposition to clinical seizures. Such photically induced changes have been reported in subjects without personal or family history or clinical findings that would suggest either psychiatric or convulsive disorder(28). Buchthal and Lennox(2) found photic stimulation of some use in detecting latent convulsive disorder but felt that the procedure was less useful in this regard than Metrazol activation. We have seen both EEG and clinical paroxysms induced in subjects by light alone, when the neurological examination and personal and

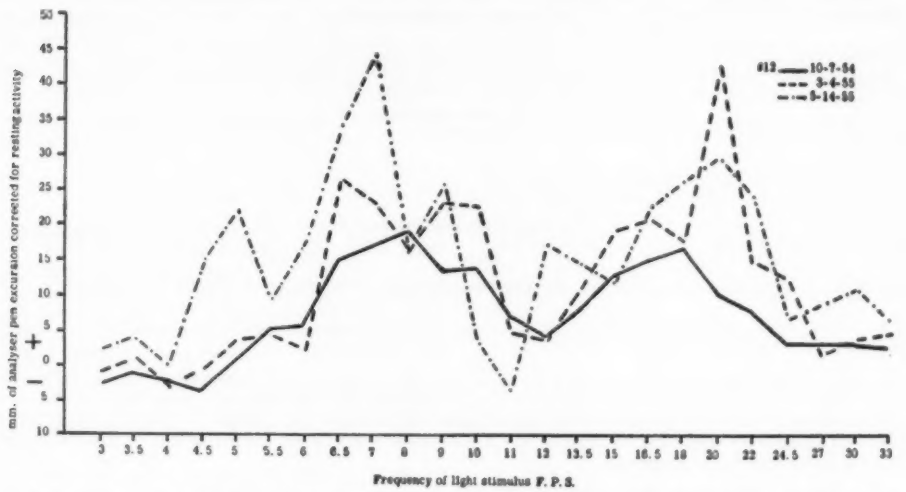

FIG. 4.—Curves made from electronically analysed Rt. Parieto-occipital EEG recording data illustrating the profile of EEG driving response to stimulation at each of 24 different frequencies of light stimulus presented to control subject #12 on 3 separate occasions. The subject was a male student, 22 years of age, with a normal resting EEG. The only positive item in his neuropsychiatric examination was a questionable concussion during college boxing.

family history were negative for convulsive and neuropsychiatric disorder. This has been puzzling and poses the question whether sensitivity to intermittent light stimulus (*i.e.*, production of paroxysmal EEG activity) may indicate a low threshold for convulsive seizures in some and in others indicate a physiologic or sensory lability that might relate to behavior disturbance or even susceptibility to psychogenic disorder. We searched within our normal control group for indications that EEG activation might, of itself, relate to a positive personal or family history or to symptoms of neuropsychiatric disorder but in this group, studied by careful interview and neurological examination, the search does not look promising.

Studies by Leiberman(9) et al., Gastaut (4), Hill(7) and others have implied that a lowered photo-pharmacologic convulsive threshold exists in schizophrenics and possibly in certain cases of hysteria and that it may indicate some common, sensitive diencephalic neural mechanism that responds to the photic stimulus similarly in both groups of patients. A careful review of these and other studies reveals a considerable problem in the interpretation of an endpoint for convulsive threshold when induced by means of photic stimulation following the injection of small amounts of a convulsant drug(24). It seemed to us that before measuring convulsive thresholds in a carefully defined group of schizophrenics, some attention should be given to methodology. Hence we have investigated and reported a method of threshold measurement using hexazole and photic stimulation that seems to have a high reliability and validity. A study is now in progress in our laboratory using this method to compare the convulsive threshold of carefully selected schizophrenics and a matched control group. Although the results are as yet incomplete, no difference has so far been found between the two groups. We have no ready explanation of why our findings in this area should differ from those of other workers although we would point out that alterations in metabolism can produce a marked change in sensitivity to photic stimulation. (Fig. 5 shows samples of an EEG from a control subject with a normal basic EEG. In the first instance he was subjected to photic stimulation after 30 hours of sleep deprivation and when he had been without food for 12 hours. At this time he showed marked clinical myoclonus and paroxysmal activity in the EEG. On the same day fol-

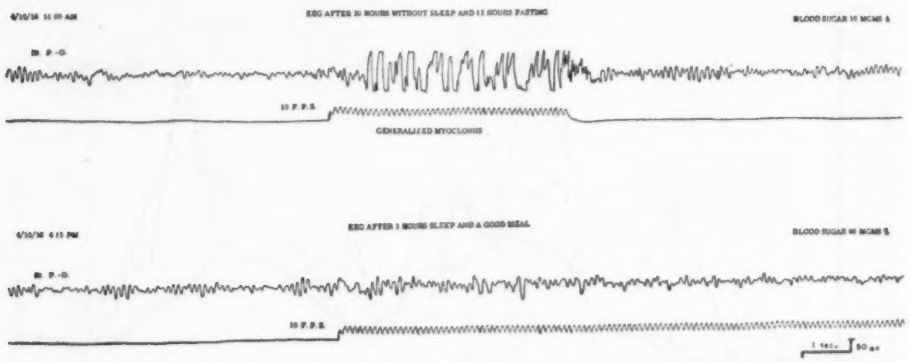

FIG. 5.—Samples of EEG recording from 22 year old student control with normal resting EEG. The first record was made at 11:00 a.m. following a night without sleep and after a 12 hour fast. The marked EEG activation shown was accompanied by generalized myoclonus. The second record was taken approximately 4 hours later after the subject had had a good meal and 3 hours sleep. At this time neither clinical nor EEG activation occurred.

lowing 3 hours of sleep and a good meal he no longer demonstrated clinical activation and showed but little EEG change to photic stimulation.) One might wonder whether such changes in metabolic conditions, not uncommon among schizophrenic patients, could account for some of the lower convulsive thresholds reported in the literature.

The ease with which an intermittent photic stimulus could induce paroxysmal activity in the brain of any subject after sensitization by a convulsant drug (*i.e.*, hexazole) led to its use as a new type of shock treatment (photo-shock) (Gastaut and Cossa(5), O'Flannagan(17) and Ulett(25)). It seemed to us that such a method might permit an evaluation of subconvulsive treatments as compared to convulsive treatments(22), hence a matched control study was completed (29). The results of this study concerning the value of photo-subconvulsive treatment are in agreement with those of Montagu's(13) carefully controlled investigation of subconvulsive electroshock. Results by Montagu and our own controlled study indicate that subconvulsive treatments are without value in the therapy of either psychoneurotic (anxiety) or psychotic disorders (depression). Convulsive photo-shock on the other hand appeared to be more efficacious than routine electroconvulsive therapy. We found photo-shock to produce a gentler seizure of gradual onset, to create less confusion and to show, in a 6-month follow-up, a more lasting recovery.

Another use of intermittent flashing light is as a tagged stimulus in the search for neurophysiological processes underlying learning and more particularly conditioning. Early work from Russia(10) and from our own laboratory seems to indicate that in the learning process there is a phase where the brain may beat in the rhythm of the conditioning stimulus (light) at a time when the light stimulus has been turned off. The evidence for this is at the moment tenuous but it is strengthened by the work of Morrell and Jasper(14) who found in monkeys, when photic stimulation was paired with a steady sound stimulus, that for a limited period of time the sound alone could induce the driving response. Much work remains to be done in this interesting area.

SUMMARY

Intermittent photic stimulation has been of value in psychiatric research in a number of areas which include: (1) the development of screening techniques based upon the EEG driving response and subjective responses to photic stimulation; (2) correlated studies of photic stimulation with psychological tests; (3) studies relating driving response to clinical symptomatology; (4) use in provoking paroxysmal or psychiatric symptoms;

(5) use of photic stimulation, together with a convulsant drug to study differences in convulsive thresholds among patients of various diagnostic groups; (6) as a treatment method in photo-shock, and (7) for studies of the neurophysiology of learning.

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METHODS EMPLOYED AND RESULTS OBTAINED IN PSYCHIATRIC STUDIES WITH NEW DRUGS ACTING ON THE BRAIN STEM [1]

F. A. MIELKE

The clinical investigations with pharmacological agents which we have been conducting at the Burghoelzi Clinic, Zurich, extend back over 2½ years. During this time, we have treated several hundred patients and studied their reactions from the therapeutic and scientific aspects. The following new drugs proved themselves clinically applicable: (1) Reserpine (Serpasil), (2) Chlorpromazine (Largactil), (3) Covatin (P-butylmercaptobenzhydril-8-dimethylamino-ethyl sulphide) as hydrochloride (derived from the antihistamine Benadryl).

To begin with, some details should be given as to how we assessed the results obtained. Under the conditions prevailing in our clinic, it was found that the procedure yielding the most satisfying results was to entrust the testing of each different drug to the same doctor; he initiates the treatment himself, keeps the patients under surveillance, and discusses the details of his cases with other colleagues in the clinic, particularly those responsible for the various wards. This method has several obvious advantages:

1. It makes it easier to obtain an over-all picture of the patients undergoing treatment and to compare the various forms which the process of the disease takes in each individual case.

2. The psychological and somatic findings are recorded and followed up by one and the same doctor.

3. This same doctor studies the course of the disease from the very beginning to the catamnesis.

4. When the findings are assembled and the statistics analyzed, the doctor who has completed a series of investigations in this manner has a good and clear personal impression of every patient he has treated. This appreciably simplifies the task of assessing precisely how a psychosis has responded to a given drug—a task which is often far from easy; it also ensures more reliable evaluation of the results.

5. In many cases treatment is an ordeal which has, as it were, to be shared with the patient—either because he is completely lacking in understanding at the start or because the side-effects of the drug, such as tremor, may begin to undermine his confidence in the therapy. Here, in the majority of cases, we were able to exploit the phenomenon of "transference" between patient and doctor.

6. Where treatment is conducted in this systematic fashion, the nursing staff has a better and more clear-cut conception of the character and purposes of the therapy. If a ward attendant requires instructions or an example to guide him, he knows to whom he can turn.

The problems which have chiefly interested us so far, and have, in one way or another determined the character of our studies, are the following:

1. To what extent and in what way do the new drugs improve the symptoms of psychotic, neurotic, and psychopathic patients or disorders of organic origin? (Disorders treated by us to date include schizophrenia, manic and depressive states, psychopathic reactions, acute and chronic organic syndrome associated with cerebral arteriosclerosis and alcoholism, mental deficiency and organic syndromes associated with epilepsy, senility and Huntington's chorea.)

2. What is the relationship between the therapeutic effect and the concomitant somatic symptoms produced by these drugs? Are the somatic and psychological effects interdependent or are the accompanying symptoms, especially those of a neurological nature, dysfunctions which must be accepted as the price to be paid for the benefits of the therapy?

3. Do these new agents produce a long-term change in the course of psychotic processes, especially those of schizophrenia? Are there any connections between the success or failure of the treatment and the pa-

[1] From the Burghoelzli Psychiatric Clinic, University of Zurich, Zurich, Switzerland, (Director: Prof. M. Bleuler).

tient's prepsychotic personality, his physique, and heredity? In other words: is the therapy symptomatic or causal?

It was with these same problems in mind that M. Bleuler(1) some 15 years ago, examined "the nature of schizophrenia remissions following shock therapy." His pioneer study served as a guide to our present investigations. Accordingly, in attempting to assess the long-term results of the treatment administered to our schizophrenic patients, we have also distinguished between the following categories, corresponding to the course of the diseases: (1) acute or chronic onset; (1) simple or cyclic course; (3) terminal stage reached prior to medicamentous therapy.

On this basis, we have drawn up the following groups: (1) Deterioration (Dementia[2]) following: (a) an acute course, (b) a chronic course, (c) a cyclic course; (2) residual states (Defective[2]) following: (a) an acute course, (b) a chronic course, (c) a cyclic course; (3) previous recoveries (good or complete remission): following a cyclic course; (4) atypical courses; (5) extremely acute schizophrenia; (6) leucotomised patients with subsequent relapse.

In no instance did we have any particular difficulty in fitting our cases into the above pattern. This classification according to course of disease offers several advantages when assessing the results of treatment:

1. It provides a guide to the prognosis and enables one to recognize quite clearly—irrespective of the symptoms displayed—which pathological process one is treating. In this way, it is at least to some extent possible for the strict standards of methodical drug-testing as practised in internal medicine, *e.g.*, in connection with the treatment of hypertension (Martini), to be applied to the complex and equivocal field of schizophrenia.

2. When describing the results obtained, it serves as a clear means by which to survey and compare the cases treated. It also marks a step toward an international standarization of the conception of schizophrenia, which at present is still variously interpreted.

We very soon learned from experience that the indications for the different drugs could not be determined on the basis of the diagnosis or by reference to the system of schizophrenia classification that has just been outlined. Instead, it is the clinical picture of the psychosis and the principal symptoms which afford the main guide. Accordingly, we also adopted a scheme for differentiating between the various symptoms, about which, however, it is not proposed to say anything further here.

For the sake of convenience, we grade our therapeutic results in the following categories: (1) No appreciable psychic effect either during or after treatment. Temporary sedation at times, as a direct sequel to individual doses. (2) Marked decrease in schizophrenic symptoms. Patient much easier for the nursing staff to handle, and able to participate in the simplest forms of occupational therapy. (3) Satisfactory improvement on an inpatient basis. Patient co-operates well, displays some independent initiative, and can be kept in a quiet or open ward. (4) "Social remissions" and "residual states." Patient capable of earning a living in a simple routine occupation. Schizophrenic symptoms, though still present, are slight and such as to arouse little attention in the casual observer, but there is clear psychiatric evidence of defective personality. (5) Good remission. Patient fit for work. No recognizable psychotic symptoms, but a slight change in personality. (6) Complete remission. No change either in personality or performance.

Table 1 gives the general appearance of an assessment chart such as is drawn up for each patient.

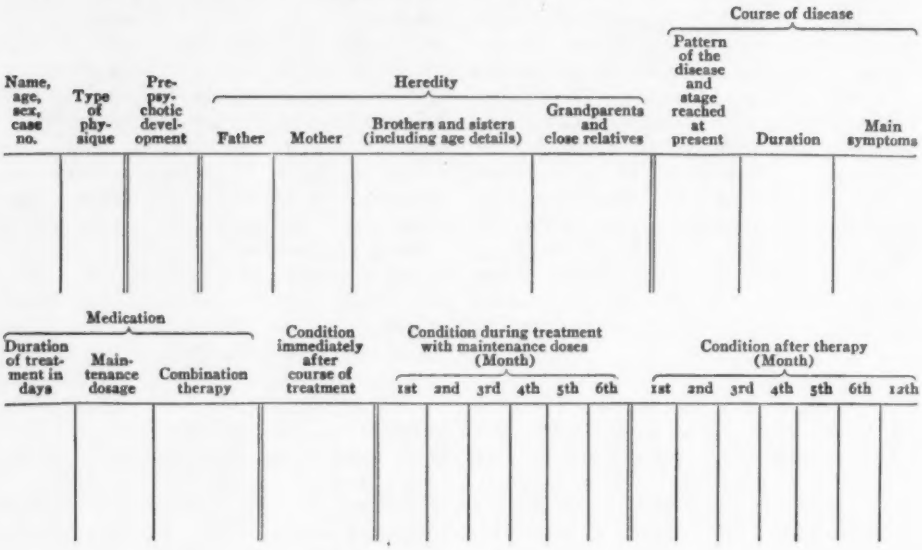
And now for some details concerning the results we have so far obtained:

Covatin.—This has hitherto been described in the literature as a sedative with spasmolytic but no hypnotic properties. No toxic effects were observed with this drug in response to daily doses of 150 mg. for 150 days or 300 mg. for 50 days. Given alone, Covatin had no significant effect on our psychiatric patients. At present, we are using this drug only for initial treatment and always in combination with chlorpromazine. This combination does not seem to influence the patient's impulses, initiative, and psychomotor system, but does modify primarily his low spirits and melancholy. Hence, we have already achieved several encouraging successes with this com-

[2] Classification according to Manfred Bleuler.

TABLE 1

PATIENT ASSESSMENT CHART



bination in patients suffering from endogenous and reactive depression.

Reserpine.—This drug was introduced in our clinic during the autumn of 1953(2, 3), when we began using it for short-term therapy in the same indications as those for which we had already been employing chlorpromazine. By now(5, 6, 7, 8), our experience with Serpasil treatment covers a total of over 400 cases. As a general principle, we initiate reserpine treatment with injections; it is only in chronic cases where the patient, after already receiving a prolonged course of injection treatment in the clinic, shows signs of an incipient relapse, that we continue with oral medication in tablet form.

We have not observed any satisfactory results in response to treatment with small, gradually increasing dosages. A course of treatment has most likelihood of success if the dosage is adopted to each individual case, *i.e.*, if the patient is given the smallest dose at which the drug is still fully effective. We raise the daily dose above 10 mg. intramuscularly only in a few isolated cases, preferring rather to combine the reserpine treatment with small doses of barbiturates. For several months now, we have been combining reserpine exclusively with Doriden (glutaric acid imide).

In order to ensure that, in the first phase of treatment, the sleeping patients are not exposed to the continuous visual and acoustic stimuli of a busy ward, we have provided a special ward for them. In this ward, which —even during the daytime—is kept in semi-darkness or twilight as it were, the hypnotic and sedative action of the reserpine is deeper and more prolonged as regards both the effect of the daily doses and the course of treatment as a whole. This specific sedative action of reserpine thus breaks through the vicious circle that results from the restless patient's conflict with his environment; moreover, thanks to the rapid improvement in the patient's effective responses and to the excellent opportunities which this arrangement affords with respect to nursing facilities, it is possible to gain a better insight into the content and character of each patient's psyche. By depriving the psychosis of its affective energy, the treatment helps to establish an early prerequisite for the patient's amenability to psychotherapeutic measures. Accordingly, we have consistently followed up this approach by trying to create a distinctive

atmosphere of calm, security, and understanding in the ward in question. Throughout the entire course of treatment, we study each patient's particular problems. Where the patient claims to hear voices, reports imaginary experiences, or suffers from delusions, we always begin by accepting these notions as reality; we discuss them with the patient, and promise to get to the bottom of his problem or protect him from imagined dangers. In this connection we also frequently make use of interpretation by "transference," as described by Rosen and Benedetti.

As the drug takes effect, the patients themselves begin to regard the doctor and the nursing staff as healers and helpers—as allies in their struggle against the psychotic forces. Hence, the words and explanations used by the doctors and staff tend to assume great importance as in counteracting the patient's psychotic ideas and impulses; the very fact that a patient can, if only to some extent, believe in what they say is a sign that he is beginning to gain insight. Thus, provided one understands how to make profitable use of their time, the patients need not be left to idle away their days in futile inactivity.

Direct analysis of an individual schizophrenic patient involves a considerable sacrifice of time and effort for the doctor, and for this reason it resorted to only in exceptional cases. Where reserpine treatment is given, however, it is possible to achieve an all-around psychotherapeutic effect.

After an average of 14-21 days, we allow the patients to get up, whereupon we gradually introduce them to occupational therapy while at the same time keeping a watchful eye on their mental health and treating them with Serpasil tablets.

In order to bridge over a certain phase occurring during convalescence, we often administer Ritalin or Dexedrine, preferably spansules, either after the reserpine course has been completed or while the patient is being adjusted to a maintenance dosage of reserpine. This combined treatment with Ritalin or Dexedrine is especially indicated in cases of depression; here very accurate dosage is called for, so as to prevent the patient from lapsing into increasing lethargy.

To revert to the questions mentioned earlier, which our studies were designed to answer, the results obtained with Serpasil are presented in Table 2. The catamnesis of 98 of these patients presented after 12 months of therapy (in contrast to the results one month after treatment) appears in Table 3.

TABLE 2

RESULTS AFTER A SINGLE COURSE OF RESERPINE THERAPY—194 PATIENTS

	Immediately after Reserpine treatment	After one month	After six months
No appreciable reaction.	32	77	108
Marked decrease of symptomatology	31	19	10
Social improvement on an inpatient basis ..	74	27	23
Social remission	44	50	28
Good remission (significant improvement) .	11	12	17
Complete remission (cure)	2	8	7
Total	194	193 *	193 *

* One discharged patient died.

Deteriorated patients and those with unsuccessful leucotomies are not included in these statistics, since it is not possible to assess their cases merely on the basis of a single course of reserpine therapy. As a rule, it is only after they have undergone several long courses of treatment or long-term medication that patients respond with an improvement to categories 2 or 3. With this method of treatment, we succeeded in rescuing a number of hopelessly stranded cases among the chronic patients in the clinic. If conducted in a more intensive and persistent manner, these new courses of treatment may

TABLE 3

RESULTS WITH RESERPINE AFTER 12 MONTHS OF TREATMENT—98 PATIENTS

	One month after treatment	Twelve months after treatment
No appreciable reaction	37	69
Marked decrease of symptomatology	12	4
Social improvement on an inpatient basis	18	6
Social remission	23	9
Good remission (significant improvement)	4	4
Complete remission (cure)..	4	4
Total	98	96 *

* Two discharged patients died.

well help schizophrenic patients on the road to a form of existence which, although obliging them to remain in a mental institution, is nevertheless better than that to which they might otherwise have been condemned.

As yet, we are not in a position to judge what effect prolonged maintenance doses, given perhaps for years at a time, will have on mildly defective schizophrenics. In cases in which a good "social" remission has been achieved, it is doubtful in most instances whether the patient will take the drug regularly, although a single daily dose should prove sufficient. On the other hand, we know of several cases already, in which relapse and, for example, exacerbations in paranoiac subjects have been successfully nipped in the bud with reserpine by the patient's own family doctor.

Bearing in mind the system we have adopted for classifying these mental disorders, according to the course taken by the disease, the problem of employing prolonged treatment with maintenance doses raises, among other points, the following specific questions: (1) In cases where the disease follows a cyclic course, and especially where acute episodes follow in rapid succession, is a drug which acts on the brain stem capable of prolonging the remissions or preventing relapse altogether? (2) Is it possible, by means of prolonged medication (and ambulatory psychotherapeutic treatment), to raise the patient out of a defective state, especially in cases where the disease assumes a cyclic course and a certain degree of deficiency remains?

This raises the whole question of the problems connected with long-term therapy and with the prevention of acute episodes in the course of the disease.

Further results obtained by us cannot be given here in detail, but may be presented in summary form:

1. In 84% of our cases, a single course of reserpine—given in a dosage corresponding to the severity of the symptoms—was effective in influencing the process of the disease *for the present*. The therapeutic result achieved in such instances could be classified as ranging between "satisfactory improvement on an inpatient basis" to "complete remission"—depending on the severity of the patient's psychotic condition.

2. The result of reserpine therapy depends upon the stage at which the treatment is initiated (dementia, defectiveness), upon whether the patient has hitherto recovered from cyclic episodes, and upon the severity of the individual symptoms.

3. The *immediate* success of a single reserpine treatment is independent of the prepsychotic personality. On the other hand, the patients who are still cured 1 year after the end of treatment showed a prepsychotic condition which was 49% healthier than the other patients. Relationship between success and failure of the therapy and physique or heredity has not been found.

4. The treatment has no long-term effect on the course of the various schizophrenic processes. In every case, the schizophrenic process one year after treatment runs the same course as before. The only exceptions to this rule are patients with a particularly favorable prognosis, *i.e.*, those suffering merely from a mild defect and, even then, only if the disease displays a cyclic pattern.

5. In cases involving acute schizophrenia and cyclic patterns, in which every acute episode has hitherto been followed by recovery, the over-all result achieved with reserpine corresponds to the response elicited with the types of symptomatic therapy previously in common use. From the biological aspect, the "cures" effected with these latter forms of treatment resemble spontaneous remissions.

6. The concomitant somatic effects, and particularly the extrapyramidal symptoms, are not essential prerequisites for the drug's psychological action, nor is there any causal connection between such somatic effects and its psychic action. It would be more correct to consider them as regulatory disturbances, which occur regardless of either the size of the dosage administered or the initial state of the pateint's autonomic nervous system and brain stem.

To sum up, then, we would describe reserpine as a very effective drug for the *symptomatic treatment* of psychiatric cases. In comparison with previous forms of therapy, it has several advantages, among which in particular is the fact that it involves no risks when given in appropriate doses, and that it is relatively easy to handle; one of its principal merits, moreover, is that it offers every

possibility and encouragement for psychotherapy and occupational therapy.

Chlorpromazine.—This drug bears a very close resemblance to reserpine as regards its psychic effects. In contrast to reserpine, it occasionally has a mild euphoric effect on depressed patients. This would appear to be an advantage when treating some cases of depression. The significance of chlorpromazine is generally recognized today and reports on clinic experiences amount to more than a thousand articles at present. If I have reported mostly on our experiences with reserpine, it was done with the intention of discussing the principles of clinical methodology in connection with drug therapies. Therefore, what was said about reserpine, applies generally to chlorpromazine in the same fashion. K. Ernst(4), a member of our staff, reported in 1953 about the effects of chlorpromazine after trying it out on himself. Since then, several hundred patients have been treated with this drug.

There are certain patients who respond admirably and unfailingly only to the one or the other of these 2 drugs, even when the treatment is given repeatedly. In some cases, this is obviously due to differences in the patients' physical reaction, whereas in other cases it is impossible to discover the reason. We have hitherto assumed that such differences in the effect of these drugs are determined by the state of the patient's autonomic nervous system at the outset of treatment. To investigate this problem is a task of practical significance for the future. The chief differences between reserpine and chlorpromazine lie in their somatic effects. It may even be said that the difference in their somatic effects corresponds to the chemical difference in their structural formulas, whereas, curiously enough, their psychic effects are almost identical—assuming, of course, that they are given in equivalent dosages. For our patients, we found that about 10 mg. reserpine were equivalent to 300-400 mg. chlorpromazine. The question as to which of the 2 drugs should be used must be decided mainly in the light of the patient's physical case history and physical condition, as well as his individual reaction.

The progress which these new drugs acting on the brain stem have wrought in the treatment of psychiatric cases is obvious. They represent the fulfillment of a desire that has been felt for many years—the desire for adequately effective drugs with a damping effect on the autonomic nervous system. Their introduction not only constitutes a welcome addition to the forms of treatment hitherto available for use in mental institutions, but also provides a powerful stimulus for those whose mission it is to tend the sick in mind. At the same time, the appearance of these new drugs has revived interest in many aspects of the problem of mental disease.

Summary

The method and results of treatment with reserpine, chlorpromazine, and Covatin are reported. Also emphasized are the expediency of a semidarkened ward and the patient's accessibility to early psychotherapeutic contact. With chronic cases, the knowledge of the spontaneous course of the disease is the foundation of our appraisals of the therapeutic results. Categorization of patients is discussed according to the course of their illnesses before treatment. Results of therapy are further broken down into 6 degrees of improvement. Cases of schizophrenia treated by reserpine are used as an example for the manner in which pharmacological treatment affects only the temporary disease process. Follow-up studies of 194 patients mainly show that the treatment has no long-term effect on the course of the various schizophrenic processes. In every case, the schizophrenic process 1 year after treatment runs the same course as before.

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TRANSORBITAL LEUCOTOMY IN NONINSTITUTIONAL CASES

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INTRODUCTION

Transorbital leucotomy was developed in the course of search for refinement of the standard or prefrontal lobotomy. Walter Freeman elaborated the technique in its present form, basing his procedure on work by Fiamberti(1).

I have been using this method of psychosurgery since 1949. The patients in the various series reported in other papers, mostly by Freeman, were a mixture of institutional and noninstitutional cases. Those in this report came almost entirely from private practice and there are, therefore, certain interesting observations to be noted.

Of the various types of psychosurgical procedures none has proven to be simpler or safer than transorbital leucotomy. It has been pointed out before(1, 2, 3), and this author agrees, that the psychiatrist who makes an adequate study of the surgical anatomy and the technique of this operation can readily qualify for its use. This is because of its comparative safety and the inherent simplicity of the technique. In our series the operative mortality rate to date is 1.2%.

TECHNIQUE

The operative technique is as follows: One hour before operation the patient is given morphine sulphate gr. 1/6 and atropine sulphate 1/100 subcutaneously. The anesthetic agent is Sodium Pentothal given intravenously.

The instruments are the transorbital leucotomes especially designed by Freeman. The point of the leucotome is inserted beneath the raised upper eyelid at a distance of 3 centimeters from the midline, in a plane parallel with the bony ridge of the nose. It is caused to penetrate the superior conjunctival fornix and rested against the high point of the orbital roof. It is then tapped gently in to a depth of 5 centimeters and the handle is drawn laterally to the outer rim of the orbit. The leucotome is then returned to the starting position and tapped in another 2 centimeters to a total depth of 7 centimeters. The handle is then drawn mesially to the ala of the nose, thence back to the starting position and then upward against the superior rim of the orbit. Here sufficient pressure is exerted to cause cracking of the edges of the bone at the point of penetration through the orbital roof. This allows for severance of some of the nerve fibers which overlie the orbital roof. The instrument is then withdrawn and a pressure bandage is applied and left in place for 20 to 30 minutes. This technique is carried out bilaterally.

The routine postoperative orders are as follows: (1) Blood pressure and pulse are taken every hour until the patient is fully awake. (2) Crysticillin, 300,000 units, is given intramuscularly stat. (3) Sulfadiazine, gm. 1.0, by mouth, every 4 hours for 24 hours. (4) Aspirin, grains 5, by mouth, every 4 hours if needed for headache or pain. (5) Ice-cold compresses are applied to the eyes continuously through the first 24 hours after surgery. (6) Warm boric solution compresses to the eyes continuously throughout the second 24 hours. (7) Report any unusual trend in blood pressure, pulse, temperature or state of consciousness. (8) Report immediately any convulsions and be prepared to administer sodium luminal, grains 5, intramuscularly. (9) Fluids and diet as tolerated. (10) Patient to remain in bed during the first 24 hours and then is allowed up and about, *ad lib*.

The patients usually were discharged home 2 days after operation.

Thus it appears quite clear that this procedure, in the hands of psychiatrists trained in its use, becomes more readily accessible for the patients in whom it is indicated. Also of much importance is the fact that is to be done by the doctors who take the responsibility of recommending it.

All the cases in this series were operated in a small community general hospital and no difficulty in their management was encountered. This, plus above-described technique

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and aftercare, emphasizes quite strongly that the procedure is suitable for use in the general hospital.

There remains the question of evidence that this operation is worth while doing. This, it is hoped, is shown in the evaluation of the data herein presented.

CASE MATERIAL

The patients chosen for the operation were those whose illnesses were chronic, severe and disabling. All had failed to respond adequately to various forms of more conservative therapy.

Emphasis in the selection of patients was placed on the prominence of tension, fear, agitation and depression; *i.e.*, the "tortured self-concern" in their symptomatology. In the schizophrenic patients special attention was given to the intensity of emotional tone still remaining. The group of psychoneuroses was made up of patients whose illness was of very long duration and who had true disability or incapacity.

The 115 cases herein summarized have been followed for 1 to 6 years with an average of 3½ years. The only criterion of selection for evaluation was adequate follow-up.

The average mortality as reported in other series is 1.7% to 1.8%. In our entire series to date the rate is 1.2%. There were no complications of major significance and, of the few minor complications, none persisted longer than 4 days postoperatively. These consisted, in 2 patients, of inertia, lasting 2 days in one and 4 days in the other. Another patient developed an acute hallucinatory reaction with confusion a few hours after operation and this persisted 3 days before clearing. There were no personality changes, "vegetable reactions," loss of skills or inhibitions, or impairment of intellectual level, so far as could be observed. There were no postoperative epilepsies and no patients showed memory loss.

Results were evaluated on the basis of easing of symptoms, economic, social and recreational readjustment. Those with full remission of symptoms and good adjustments otherwise were classed as "remissions." Those with good adjustments but who had mild residual symptoms were classed as "improved," and the remaining cases as "failed."

The schizophrenic group totaled 40 cases: 9 schizo-affective, 12 paranoid, 13 catatonic, 1 hebephrenic, 1 juvenile and 4 type undetermined. The average duration of illness for the whole group was 6 years and the average follow-up after operation 4 years. There were 15 "remission," 12 "improved," and 13 considered as "failed."

In the group of affective disorders were 11 patients: 4 manics of whom 3 were "remissions" and 1 "failed," 1 hypomanic who attained a "remission," and 6 involution reactions of whom 4 were "remissions" and 2 "improved." The average duration of illness in this group was 9 years and the average follow-up 3 years.

In the group of psychoneuroses there were 51 patients. The average duration of illness was 15 years and the average follow-up 3 years. There were 34 cases of psychoneurosis, mixed types, of whom 15 were "remissions," 17 "improved," and 2 "failed." Of the 14 chronic anxiety reactions 8 were "remissions," 5 "improved," and 1 "failed." There were also 2 obsessive compulsive reactions, one a "remission" and one "improved." There was one case of neurasthenia which resulted in a "remission."

In a group of miscellaneous disorders there were 5 patients who were operated for intractable pain and suffering syndromes, 1 senile paranoid reaction, 2 senile depressions, 3 paranoid states, 1 psychosis with epilepsy, and 1 psychosis with mental deficiency. Of this group 5 attained "remission," 3 "improved," and 5 "failed." Four of the 5 who had intractable pain and suffering obtained excellent results. The 2 patients, one psychosis with epilepsy and one psychosis with mental deficiency, improved as to their psychoses, and that was the aim of the operation. The 3 with senile reactions did not improve. Table 1 gives a summary of all cases.

TABLE 1

SUMMARY OF ALL CASES

Diagnosis	No. of cases	Remissions	Improved	Failed
Schizophrenics	40	38%	30%	32%
Affective disorders.	11	73	18	9
Psychoneuroses	51	49	45	6
Miscellaneous	13	38	24	38
Totals	115	44%	36%	20%

Discussion

In general, the schizophrenics fulfilled the usual criteria of chronicity and disability as regards selection of cases for surgery. They did not show the characteristics of being "institutionalized," and in this regard were therefore less severe and regressed than similar groups in other series. Our results in this group are comparable to those reported by others(1, 2, 3, 6, 8, 10, 11).

Our most impressive results were found in the group of psychoneuroses. This is the largest group in the series and for the most part the illnesses were of the longest duration. In most instances their reactions to surgery were quite dramatic. It was common to observe marked alleviation or total disappearance of symptoms within one to two hours after operation, or about the time needed to waken fully from the medication and anesthesia. The great majority of those who responded well to the procedure showed their improvement in the first 24 hours. The usual hospital stay was two days after surgery. Within one to two weeks these patients were able to return to their regular activities of work and social and recreational pursuits. Some waited for the peri-orbital swelling and ecchymosis to clear enough so that they would not attract too much attention. Others simply wore dark glasses to mask the "black eyes" and some were back at their regular pursuits as early as 4 days after operation. This was true of all groups, not just the psychoneuroses.

The psychoneurotic patients had been struggling for years without much success to maintain a reasonable adjustment. They had eventually become truly disabled and had failed to respond adequately to other therapies. They were often receiving nothing more than symptomatic medication and had come to feel they were burdens to themselves and others. Such cases are encountered quite commonly and are often distressing to the physician as well. It is our opinion that such patients, after careful screening, should be considered for transorbital leucotomy. The risk is small, the response is frequently immediate and dramatic and the results are excellent in a very satisfactory percentage of cases. It is interesting to note that these patients, when exposed to strong stresses subsequent to operation, responded in an average manner. This would suggest that the surgery had served to relieve them sufficiently of their tensions, fears, etc., but without producing indifference or inability to react emotionally.

In a period of over two years of extensive experience with tranquilizing and ataractic drugs, I have seen no convincing evidence that these drugs have made psychosurgery obsolete. They are valuable in treatment of psychiatric problems and should be given full trial before resorting to surgery but it should be recognized that they are not yet proven specifics, curatives, or productive of "medical lobotomies."

Summary and Conclusions

Results in 115 cases of transorbital leucotomy of noninstitutional patients are reported. The author believes that this is an excellent technique for treatment of selected cases from private practice, as well as such institutional cases reported by others.

Studies of the psychoneurotic group are of particular interest and indicate another method of management of a very common and difficult problem.

Results in those patients operated for relief of intractable pain and suffering suggest that this procedure is effective and among the least drastic of surgical measures.

Several patients who had secondary dependency on narcotics, barbiturates, and alcoholic beverages obtained relief from these dependencies along with relief from the underlying disorders and none showed any withdrawal symptoms.

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CLINICAL EVALUATION OF PACATAL[1]

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The necessary search for newer and perhaps more effective ataractics has resulted in an interest in the therapeutic potentialities of N-Methyl-Piperdyl-(3)-Methyl-Phenothiazine; also known as "Mepazine" or "Pacatal."[1] This drug, under the trade name of "Lacumin," has been tested upon the European continent by Werenberg(1), by Laborit and Huguenard(2) and Kleinsorge (3). In the United States and Canada, Rudy *et al.*(4), Bowes(5) and Kline and Jacob(6) have reported upon their experiences with this drug.

Animal pre-testing of Pacatal indicates that it has a relatively low acute-animal-toxicity and causes no hematological deviations from normal at any dosage level. Studies(7) indicate that the administration of dosages of 100 mg./kg. to dogs results in lymphocytic infiltration of the liver and active degeneration of spermatic cells.

The fate of Pacatal in the body is unclear. Hendriksen *et al.* (8), found that rats deposit Pacatal in various tissues and that a relatively small amount is eliminated. They, however, did not find evidence of cumulative effects.

Pharmacological studies(7) with Pacatal indicate inhibition and stabilization of the central and peripheral regulatory mechanism of the autonomic nervous system and direct depression of the central nervous system, manifested clinically by sedation (without hypnosis), and, potentiation of narcotics, hypnotics and analgesics.

METHOD

CLINICAL MATERIAL

This report summarizes the experiences of the Topeka State Hospital Medical Staff with 130 patients who received this drug. These patients were chronically psychotic and refractory to all previous forms of therapy. Of this patient-group, 12 have been excluded from all aspects of the evaluation other than those pertaining to toxic effects, because their medication had not been continued for at least 2 months. The remainder of the group received Pacatal for from 3 to 6 months. Table 1 summarizes the composition of this test group upon the basis of diagnostic categories. The severe chronicity-of-illness of the patients tested is reflected in the statistics of Table 2. It is pertinent to note that not a single patient tested had been mentally ill for *less* than 2 years, and, the great majority had been ill for more than 10 years.

TABLE 1

COMPOSITION OF TEST GROUP UPON THE BASIS OF DIAGNOSTIC CATEGORIES

	No. of Patients	Percent of total group
Schizophrenic reactions	86	72.9
Chronic brain syndromes.....	16	13.5
Psychoneurotic reactions	8	6.8
Manic-depressive reactions ...	4	3.4
Mental deficiency	4	3.4

CRITERIA

The method of evaluating response to Pacatal, with the criteria upon which this evaluation is based, is covered in detail in a previous report(9). It consists of the clinical rating of various aspects of behavior upon a 4-point scale, and the conversion of these individual ratings into an over-all rating (for total response to drug) using a 6-point scale.

ADMINISTRATION

Pacatal was provided in 25 mg. and 50 mg. tablets for oral administration, and, 2 cc. ampules (containing 25 mg./cc.) for intramuscular use. Actual dosages administered varied from 75 mg./day to 900 mg./day, with the majority of the patients receiving

TABLE 2

RELATIVE CHRONICITY-OF-ILLNESS OF TEST GROUP

Duration of illness (years)	Percent of total group
0-2	0
2-5	15.5
5-10	10.4
10+	74.1

[1] Pacatal provided through the courtesy of Warner-Chilcott Laboratories.

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150-300 mg./day. Most of the patients were started with a dosage of 100 mg./day which was then gradually increased, depending upon patient response or the appearance of toxic symptoms. Table 3 indicates the relative proportion of patients on various dosage levels, each of the dosage levels having been found to be optimal for the patient concerned.

PRECAUTIONS

At the time this study was initiated, there was comparatively little literature available concerning the toxic effects of Pacatal. One report(10) stressed dryness of the mouth, blurring of vision, and, constipation. Kline (6) observed elevation of temperature, drowsiness and urinary retention, and, Bowes (11) encountered visual disturbances, anorexia, constipation and dizziness.

A standard type of precautionary regime for testing of an ataractic drug was instituted, with monthly examinations of blood and liver function, periodic but routine recording of blood pressure and the usual fractionation of dosages of analgesics, sedatives, etc. The known, reported side-effects were listed and the clinicians doing the actual testing were requested to note these and any other effects that appeared, and to correlate the appearance of a side-effect with the duration of medication and dosage. They were also requested to provide information as to the efficacy of any antidotes that were used symptomatically.

RESULTS

IMPROVEMENT

Table 4 indicates the effectiveness of Pacatal upon the various evaluative criteria of behavior. The criteria are listed in sequence of diminishing efficacy of drug.

Table 5 indicates the over-all effectiveness of Pacatal upon the various diagnostic categories.

TABLE 3

RELATIVE PROPORTION OF PATIENTS ON VARIOUS DOSAGES

Daily dosage	Percent of total group
75	1.7
100	8.6
150	22.4
200	5.2
250	5.2
300	34.6
400	8.6
500	3.4
600	5.2
800	3.4
900	1.7

SIDE-EFFECTS

Table 6 lists the side-effects encountered in the order of diminishing incidence. The fluctuating leucocyte counts observed by Bowes(5) and Werenberg(1) were not encountered in this series of patients.

DISCUSSION

At first glance, the results may not appear to be as good as those obtained with previously tested ataractics(12). A markedly improved rate of 11.9% in the schizophrenic group would hardly warrant Bowes' referral to Pacatal as a "promising new ataractic." However, when the severe chronicity of the schizophrenic patients tested is taken into consideration, the combined moderately and markedly improved rate of 42.9% does warrant some optimism as to the potentialities of this drug.

An additional asset of the drug, which was not measurable in the study, is the pleasant subjective feeling produced by Pacatal. It was described by some patients as "it makes me feel better," or "I feel less miserable," or "I feel out of this world" or "I feel less nervous." Some patients developed such a strong sense of well-being that they were reluctant to communicate their discomfort resulting from some of the side-effects for fear that the drug would be withdrawn. Many patients, despite blurred vision or excessive dryness of the mouth were eager to continue medication. Bowes(5) observed similar effects and reports a patient who had been changed from chlorpromazine to Pacatal saying, it was "like champagne after beer."

The drug appears to exert maximal therapeutic effects at dosages between 150-300 mg./day. Very few patients showed additional improvement (Table 3) when the dosage was increased above these limits, and the drug appears to be without effect in dosages of less than 75 mg. day. Hiob and Hippins(14) found the most efficacious dosage level to be 300 mg./day though they frequently went as high as 600 mg./day.

TABLE 4

THERAPEUTIC EFFICACY OF PACATAL ON THE EVALUATIVE CRITERIA

Category	No. of patients	No improvement	Slight improvement	Moderate improvement	Marked improvement
Appetite	38	63.2%	5.3%	13.2%	18.3%
Sleep	36	52.8	14.0	16.6	16.6
Tension	71	31.0	33.8	21.1	14.1
Combativeness	54	25.9	40.7	20.4	13.0
Accessibility	84	28.6	40.5	17.9	13.0
Sociability	70	52.1	22.9	12.9	13.1
Hyperactivity	63	30.1	38.1	19.0	12.8
Participation in adjunctive therapy	64	43.4	31.6	12.5	12.5
Hostility	73	24.7	41.1	26.0	8.2
Amicability	73	32.9	45.2	13.7	8.2
Appropriateness of conversation	66	39.4	33.3	19.7	7.6
Hallucinations	31	51.6	25.8	16.1	6.5
Negativism	75	26.6	46.6	21.3	5.5
Self-mutilation	19	84.1	0.0	10.6	5.3
Realistic planning	38	52.6	31.6	10.5	5.3
Dress	75	52.0	29.3	14.7	4.0
Bizarre mannerisms	51	64.7	23.5	7.8	4.0
Affect	52	50.0	38.5	11.5	0.0
Orientation	52	78.8	13.5	7.7	0.0
Judgment	41	73.2	19.5	7.3	0.0
Compulsiveness	32	78.1	15.6	6.3	0.0
Memory	32	87.4	6.3	6.3	0.0
Delusions	46	63.1	32.6	4.3	0.0
Insight	40	82.5	12.5	5.0	0.0

TABLE 5

RELATIVE EFFICACY OF PACATAL ON VARIOUS DIAGNOSTIC CATEGORIES

	No. of patients	No improvement	Slight improvement	Moderate improvement	Marked improvement
Schizophrenic reactions	86	11.9%	54.8%	31.0%	11.9%
Chronic brain syndromes *	16	25.0	50.0	—	25.0
Psychoneuroses *	8	—	100.0	—	—
Manic-depressive reactions *	4	—	100.0	—	—
Mental deficiency *	4	50.0	50.0	—	—

* Number of patients too small to be statistically significant.

TABLE 6

INCIDENCE OF SIDE-EFFECTS

Side effect	No. of patients	Percent of total group
Dizziness	39	30.0
Drowsiness	33	25.4
Blurring of vision	16	12.3
G.I. symptoms	12	9.2
Hypotension	10	7.7
Slurring of speech	8	6.2
Dryness of mouth	7	5.4
Turbulence	4	3.1
Allergy	2	1.5
Jaundice	2	1.5
Parkinsonism	1	0.8
Depression	1	0.8

The numbers of patients in the categories of Chronic Brain Syndromes, Psychoneurotic Reactions, Manic-depressive Reactions and Mental Deficiency were insufficient to warrant any conclusions as to the therapeutic efficacy of Pacatal upon these syndromes.

As seen in Table 4, Pacatal follows a pattern similar to that of other ataractic drugs in its influence upon various aspects of behavior(12). Appetite, sleep, tension, combativeness, accessibility and hyperactivity show the best responses, whereas insight, affect, judgment, etc., respond disappointingly —as they do with other ataractics as well.

The most common side-effect noted was dizziness. This usually appeared shortly after medication was instituted and gradually subsided within two weeks. It was rarely incapacitating. The second most common side-effect was drowsiness which followed a self-limiting pattern similar to that observed with dizziness. The drowsiness in

some cases was severe, and a few patients were withdrawn from the study because of it. Drowsiness that did not subside spontaneously within two weeks responded well to moderate doses of cerebral stimulant (5-10 mg. of Dexedrine).

Blurring of vision was a distressing complication in 16 patients. It was severe and prevented these patients from reading or participating in handicraft therapy. Apter and Rinsley(13) found that the visual disturbance was due to a combination of paralysis of occular accommodation and a drying of the corneal epithelium because of diminution of tear production. Complete symptomatic relief was obtained by the oral administration of neostigmine, in dosages well below those levels which might produce toxic symptoms—usually 7.5-15 mg. once, twice, or three times per day. Those patients who found it necessary or desirable to do close eye work or to read fine print were further benefited by the instillation of one drop of 0.1% Eserine in each eye, once per day.

Dryness of the mouth was reported in but 7 patients. This side-effect responded well to the regime instituted for blurred vision. Gastro-intestinal symptoms were nausea, vomiting, diarrhea or constipation. Slurring of speech was noted in 8 patients. All responded well to lowering of the daily dosage of Pacatal.

Hypotension was occasionally encountered, but was never of serious magnitude. The fall in blood pressure was gradual, not exceeding 30 mm. of mercury and no cases of orthostatic hypotension were noted. Two patients developed jaundice within 6 days of the time that Pacatal was started and their medication was promptly discontinued. These patients were receiving 25 mg. of Pacatal q.i.d. and the jaundice appeared to be the usual type of obstructive hepatitis seen during ataractic medication, differing only in that the period of jaundice persisted at maximum intensity for 6 weeks before the icterus began to subside. These two patients did not appear ill and were comfortable throughout the course of the hepatitis. They have both completely recovered and now display normal liver function.

One patient developed severe depressive symptoms culminating in a suicidal gesture on the 16th day of medication. She was receiving 75 mg. of Pacatal per day. Her daily dosage was increased to 150 mg./day and the depression subsided.

Summary and Conclusions

1. Pacatal is capable of eliciting therapeutic responses in chronically psychotic patients.

2. It is most efficacious for those aspects of behavior which are related to increased anxiety and least efficacious for judgment, insight, orientation, memory and affect.

3. The clinically significant side-effects are those related to the atropine-like action of Pacatal. Untreated eye complications, following prolonged administration of Pacatal, may lead to ulceration of the corneal epithelium.

4. It is recommended that any prolonged ocular disturbance as a result of Pacatal medication be treated with Neostigmine.

5. All the side-effects produced by Pacatal can be obliterated by symptomatic medication, lowering of daily dosage or discontinuation of the medication.

6. The results obtained with Pacatal are encouraging and warrant further investigation upon a prognostically better group of psychotic patients.

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THE DEFECTIVE DELINQUENT [1]

PETER W. BOWMAN, M.D.[2]

A discussion of the so-called "defective delinquent" should be opened with the statement that the symptom of mental retardation can be defined as an entity of considerable complexity which invades the intellect, the emotions, and physiology of the human personality. At the same time it is proper to acknowledge that our concept of the defective delinquent has yet to benefit from the new, comprehensive approach based on insights, programs, and concisely defined and commonly accepted medical, educational, psychological, and social procedures.

I cannot hope to offer a detailed study of what constitutes defective delinquency. I can elaborate on our obvious inadequacies and suggest that we replace emotionally charged administrative discussions of how to dispose of those labelled "defective delinquents" with a scientific analysis aiming at a definition of the problem as the only objective and acceptable basis for communication, legal provisions, treatment facilities, and a preventive program if possible.

As I have pointed out previously(1) we do not have a commonly acceptable definition of the term "delinquency." Often it is applied to misdemeanors and minor offenses committed by children or adolescents. Sometimes major crimes like robbery, manslaughter, first- and second-degree murder, have been termed "delinquency."

To the lawyer, delinquency has primarily legal implications. The teacher might refer to delinquency when he faces behavior disturbances which he cannot handle with the generally accepted and available disciplinary methods. To the psychiatrist the term "delinquent" is highly unsatisfactory since it suggests merely the violation of a social law without any reference to the motivation, circumstances, or medical and psychological diagnoses.

In the literature, we find that relatively little attention has been given the defective delinquent. Some authors have studied the history of defective delinquency. Others have reported the legal problems involved, such as propriety of commitment or detention, draft of laws to dispose of defective delinquents in reformatories, penitentiaries, reform schools, or special prisons. Administrators have elaborated on the assumption that our state training schools are to be residential schools which cannot and will not tolerate behavior disorders, or, by implication, neuropsychiatric disorders(2).

Many papers reflect an underlying anxiety about and intense rejection of the defective delinquent, primarily because of our obvious failure to integrate defective delinquency in either penology or psychiatry.

Sometimes the activities of the so-called "incorrigible mentally retarded" persons confront administrators and personnel of our generally understaffed and inadequately equipped state training schools and hospitals with problems of considerable proportions and consequences to the institutional operations, or to public school systems and other community agencies.

It is a known fact that courts have used a defective delinquent law or a juvenile defective delinquent act to handle defendants who were mentally retarded, on the following charges: Assault, felonious assault, theft of currency, larceny, wanton and lascivious behavior, theft, property damage, arson, common runaway, breaking and entering, larceny, theft of bicycle, false fire alarm, indecent exposure, exposure of naked body, theft of an automobile without the owner's consent, breaking and entering with intent to steal, lewd and lascivious behavior, injuring of a gravestone, throwing stones at a filling station, fornication, cruel treatment of animals, tampering with an automobile, throwing rocks large and capable of causing injuries, throwing a book at an individual, said book being large and capable of causing grevious injuries, for the best interests of the child and the protection of the community (patient's age 8½ years), manslaughter, rape, sodomy, infraction of institutional rules and regulations, etc.

[1] Presented at the North Eastern Regional Meeting, American Association on Mental Deficiency, October 1956, Southbury, Conn.

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If commitment to an institution under these provisions is automatically for an indefinite period or for life, we must ask ourselves whether a delinquent, mentally retarded person is criminally responsible.

As Board(3) has pointed out, administration of a criminal law implies several value judgments:

1. Society is entitled to protection from further malfeasance by the criminal. A subsidiary value judgment is that a degree of punishment or isolation can be imposed on the criminal as a method of securing this protection.

2. Society is entitled to protection from potential criminals, from first offenders as well as repeaters. A subsidiary value judgment is that apprehended criminals can be punished by society to create deterrent examples before the law as a warning to potential criminals.

3. Society is best served by humane administration of the law consistent with the humane purpose of the law.

These value judgments he condenses into 3 aims in administering criminal law: 1. Preventing further malfeasance by the criminal; 2. deterring others from committing criminal acts; 3. humaneness towards criminals.

When we apply these 3 principles to the alleged defective delinquent we are immediately confronted with a number of questions.

What constitutes defective delinquency? Does it include a mentally retarded person who committed a criminal act or simply a misdemeanor, who displayed acting-out commonly seen in growing children? Does a mentally retarded person become a defective delinquent because of repeated infractions of instiutional rules? Can an 8½ year-old mentally retarded boy be classified as a defective delinquent because of an alleged need to "protect him and the community" without even a charge, let alone a conviction? Is it possible to state that a mentally retarded child is considered a potential criminal though he has never committed a crime?

Who has the justifiable authority to pronounce the existence of defective delinquency? Is it to be an exasperated parent who for any number of reasons has failed to train and integrate his mentally retarded child in the family or in the community? Is it to be the prejudiced institutional superintendent who is forced to operate with an inadequate staff in excessively overcrowded quarters which lack modern diagnostic treatment and educational facilities? Is it to be the public school principal who is forced to place mentally retarded children in grades far beyond their intellectual ability merely because of chronological age and physical growth?

A clarification of these and other questions will possibly lead to a consideration of the deterring values and the humaneness of marking mentally retarded persons as "defective delinquents."

Before presenting some previously reported case histories(1), I call attention to the fact that encephalitis, meningitis, the epilepsies, and other medical, psychiatric and metabolic organic disturbances can contribute to and occasionally cause violent and aggressive behavior.

Persons so afflicted, if intellectually competent, usually are placed in mental hospitals. If their intelligence falls within the range of mental retardation, functionally or potentially, I cannot see how we can escape our responsibility to accept them and to deal with them constructively in our institutions for the mentally retarded. They require psychiatric treatment and should be handled by psychiatrically trained nurses and attendants, not by correctional officers in a penal institution.

The following case histories are typical of patients who have been committed as defective delinquents(1):

1. This 13-year-old boy was committed to an institution for the mentally retarded in 1944 on a charge of property damage and assault. Patient was born at full term, acquired first teeth at 7 months, had whooping cough and measles at 6 months. He also had chickenpox and mumps at a later age. He began school at 7, attended a school for the deaf from September 1936 until 1944. While there he was considered unable to make satisfactory progress as he was "troublesome" and "irritable" with the other children. It was said that he attacked other children and required close supervision. It was suggested that he be promoted on a social basis and was finally employed in the laundry of the school because there was not enough help. However, at the end of the school year, 1944, while on vacation, he was charged and committed as above stated.

We know very little of the father and mother except that they were divorced a year prior to patient's commitment to the institution for the mentally retarded.

His subsequent institutional history indicates that the professional staff felt that his retardation was

due to a lack of hearing and the resulting speech difficulties. It is felt that the boy has considerable undeveloped resources and could progress further, if not in grade work, at least in vocational work. Evidently, he had not had much opportunity for vocational guidance and training. Subsequently this boy regressed in his ability to write because of lack of individual attention and educational opportunities at the institution and he was placed in the manual training shop where he became expert in chair-caning, sewing brooms, etc. He displayed an active interest in ballgames, pitching horseshoes, and other recreational activities.

2. This 16½-year-old boy was committed to an institution for the mentally retarded on a charge of sexual assault on a minor male. He was the third child in order of birth, started to walk at 18 months and was reported normal in all other matters. He entered school at 6, and was attending the eighth grade when sent to the institution for the retarded. He was first committed to the state school for delinquent boys in 1952 and was released on parole in 1953. He was picked up by the police on complaint that he had taken indecent liberties with a 4-year-old boy. It was later learned from his mother that he had tried to perform sexual acts with a younger brother. Father is said to be a member of a family of 9 children; he cannot read or write but can sign his name. He is the proprietor of a beer parlor and has also done some work with construction companies, before he opened his shop. He has been known to indulge heavily in alcoholic beverages. In 1938 his wife secured a divorce.

Patient's mother is said to have been always the frail woman of the family. She has been subject to asthmatic attacks since age 14 at the time of the menarche. She is said to have had good marks in school and at one time was taking a correspondence course to finish high school. She always hated alcohol, but she did take it for her asthmatic attacks, chiefly brandy "prescribed by her doctor." In 1950 she took various kinds of medication and brandy and one night attempted to kill the patient by hitting him over the head with a hammer, soaking the bed linen in oil and setting it on fire. The patient, however, escaped. Mother was subsequently committed to a state hospital for observation.

Patient did not stay at the institution for more than 3 weeks because psychiatric and psychological evaluations indicated borderline to normal intelligence. He was discharged in the custody of the state school for delinquent boys.

3. This 12-year-old girl was committed to an institution for the mentally retarded in 1949 on a charge of larceny. Patient was the fourth child in order of birth; she is said to have walked and talked at 4. For some years she had been boarded in various foster homes by her father and was known to have had sexual relations with both boys and men prior to commitment to the institution. She was expelled from school because of truancy and as a behavior problem, after she had been promoted to the third grade, although her I.Q. rating was approximately 46. A few months prior to commitment, father was arrested on a charge of incestuous relations with the patient. Mother deserted father and children several years before. No other information given.

Subsequent institutional history shows that the patient became increasingly disturbed, developed delusions of persecution, visual and auditory hallucinations, and was finally transferred as psychotic to the state hospital at age 17.

4. This 16-year-old boy was committed sometime in 1945 on charges of felonious assault on his father, who might be his step-father since there is a question as to paternity.

Early medical history is uneventful.

Mother is of questionable conduct; described as mentally retarded; left her family when patient was of preschool age, after she had rejected and mistreated her children for a number of years. Father also considered mentally retarded, a seaman by trade, now deceased.

Two grandparents, several aunts, uncles, and first cousins have been convicted or sent to state institutions. Two uncles and 4 cousins have been sentenced to from 24 to 48 years in state prisons on the following charges: manslaughter, robbery, breaking, entering and larceny, indecent liberties. Eight cousins and 2 aunts and 1 sister have spent an undetermined number of years at the state school for delinquent girls. Three cousins and 2 uncles have been committed for an undetermined period to a state school for delinquent boys. One aunt was committed to a state hospital, 1 cousin to a reformatory for men, and 1 sister and 2 aunts to a reformatory for women.

We know, therefore, that the patient was raised in an atmosphere of maternal rejection, neglect, and possible abuse, of paternal ignorance and questionable paternity. To this, we can add a remarkable family record of criminality. With this background in mind, it is not surprising to read patient's institutional record:

A psychometric test at time of admission to the institution for the mentally retarded indicated a mental age of 7 years, and an I.Q. of 47. He was assigned to manual training classes but was uncooperative and refused to carry out instructions. Beginning in January of 1946, he accomplished his first escape and such attempts continued throughout his stay at the institution. In 1947 he broke into a camp with another patient, stealing clothing, rifle, shells, flashlight, etc. Subsequently he fired a shot at the game warden who attempted to apprehend him, but he was finally subdued. In accomplishing his several escapes, he did considerable damage to institutional and private property, and to his own clothing. In November of 1949 one of his escapes resulted in his apprehension in New York City. He was taken to Bellevue Hospital and eventually returned to the institution. From time to time sharpened knives, files, etc. were found on his person. He became more and more uncooperative and belligerent. On 3 occasions he had what was described as "epileptiform seizures." In February 1953 he, with 3 other patients, es-

caped, set fire to the dairy barn of the institution. They were apprehended and placed in the county jail to await grand jury action, when they were sentenced to the reformatory. At the reformatory it was reported that patient's health was good with the exception of what appeared to be attacks of epilepsy, for which he was at times hospitalized. He was tried in first-grade work, but allegedly could not absorb the data and was excused from attending. After serving his minimum sentence at the reformatory his case was taken up by the parole board and it was decided he should be taken to the Probate Court for re-commitment to an institution for the mentally retarded. Three weeks after his re-commitment he had recurring epileptic seizures for which medication was administered. He gradually acquired a persecution complex, threatened to kill attendants with a knife, developed delusions that medication given him made him crazy, threatened suicide and was obsessed with never being able to be released from the institution for the mentally retarded. Two of his fellow escapees had been paroled from the reformatory, probably because of a higher mental age. Sometime in 1954 patient developed symptoms resembling a prison psychosis and he was transferred to a state hospital.

I cannot agree with Lurie, Levy, and Rosenthal that "the defective delinquent's prognosis with regard to cure of his behavior difficulty is uniformly poor" and that "at present commitment for life to a custodial institution especially equipped to treat this type of child offers the only solution(4)".

I rather admit that there prevails an appalling lack of knowledge of what constitutes "defective delinquency" if such an entity exists at all,[8] that generally the professional approach has been negative and remiss.

It might be of academic interest to investigate the reasons for this situation. I propose, however, that we be practical and search for constructive answers.

Already in 1951, Benda, Farrell, and Chipman(5) recommended that we "abandon as much as possible all generalizing categories and proceed to an investigation of these specific conditions with which we are dealing. Only in this way can each condition be understood and treated according to its specific need." This program should be used in our approach.

In a report of the Citizens' Committee for Children of New York, Inc.(6), it is stated that there is "no formal recognized coordination between or among Federal, state, and local public agencies, or between public and voluntary programs *in the field of mental retardation;* that there is no clear allocation of public responsibility in the local community for early case finding, comprehensive diagnosis, or parent counselling; that there is today no organized program for public and professional education about mental retardation and about *the needs of persons found to be mentally retarded.*"

I should like to add that mental retardation in its implications and consequences and with it the symptom of what we now call "defective delinquency" cannot be separated from our general social concern, expressed in public health, mental health, welfare, educational, correctional, and spiritual activities. Yet segregation is the basic idea which has excluded the mentally retarded from educational and social community activities and advancements, which has sent thousands of patients to state institutions for a predominantly custodial life of deprivation and confinement.

Because of a remarkable degree of professional resistance and ignorance, starting at our graduate schools of education, social work, psychology, and even in our foremost medical schools, the symptom of mental retardation has yet to emerge as a generally accepted matter of scientific concern and professional status(7).

At the institutional level we observe a pathetic lack of facilities and staff which is matched by remarkably overcrowded dormitories and long waiting lists. In this atmosphere behavior disorders are events which disturb the functions of the institution, disrupt the staff, and contribute materially to low morale among patients, staff, and patients(1, 2, 3).

These facts present an extraordinary challenge: Our thinking on the symptom of mental retardation is in a stage of transition. Establishment of special classes and provisions for refined educational techniques and services at the community level coincide with the trend to social integration of the retarded in the family and in community sheltered workshops.

This process demands that we give serious thought to investigating the changing functions of our institutions for the mentally retarded.

[8] The Diagnostic Manual of the American Psychiatric Association does not list "defective delinquency" as a diagnostic entity.

There is an obvious trend to send to our institutions children who present psychiatric disorders which cannot be taken care of in the community, or who are so severely retarded that they require protection and a form of training which the community does not provide(9). This means that our institutional programs will require revision, that our staffs will have to adjust to more problems, to search for new answers and therefore to consider scientific research as an essential and necessary part of every institutional operation(8). Our treatment programs will have to be based:

1. On the well-established recognition that we are engaged in a multidisciplinary activity. The mentally retarded patient presents complicated and challenging diagnostic and treatment problems in the fields of medicine, clinical psychology, special education and social work. The so-called ancillary services, occupational, recreational, physio- and hydrotherapies, music therapy, speech therapy, nursing care, etc., have become an integral part of treatment.

2. On modern diagnostic processes: detailed history of the presenting symptoms including pertinent medical data of the prenatal, paranatal, and postnatal development, psychological evaluation, detailed social history to permit a thorough understanding of the patient's environment, clinical examination to include evaluation of vision, hearing, speech, motor coordination, of serological, hematological and chemical tests, of a psychiatric evaluation wherever it applies, integration and coordination of all findings in the diagnostic staff conference where etiological factors will be identified, where a working or final diagnosis is arrived at and where prognosis and a comprehensive treatment program are being formulated.

3. On sufficient understanding and cooperation between the various services to effect, as much as humanly possible, staff accord in carrying out treatment for the individual patient.

This approach places a heavy responsibility on the administrative officer and the various department heads who have to plan and present an operating budget to provide the services and facilities necessary. They must use all proper means of public education, public relations, and communications, to gain the institutional objectives by convincing citizens and their legislative representatives of the need for the requested funds.

Recruitment of professional and non-professional staff often will require reconsideration of job classifications at the local as well as at the state level, establishment of competitive salary schedules and of scholarships for graduate studies if we are to find the people to do the job.

Our building program must include provisions for treatment and dormitory facilities for disturbed patients. Functional architectural design to create a proper atmosphere must gradually replace the overcrowded mass quarters of the custodial care era, when it was important to detain as many "inmates" and as cheaply as possible. We will have to plan to locate any new institution which might be planned for the mentally retarded close to existing medical centers to overcome our professional isolation and to benefit from, as well as contribute to, existing clinical, academic, and research programs.

There is an increasing awareness of these changes. However, we have still a long way to go until we can practice what we have recognized to be necessary for successfully dealing with mental retardation. Until this time I am inclined to replace the term "defective delinquency" with "social delinquency."

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IS THE HUMAN PERSONALITY MORE PLASTIC IN INFANCY AND CHILDHOOD? [1]

IAN STEVENSON, M. D.[2]

"The doctrines which best repay critical examination are those which for the longest period have remained unquestioned."

A. N. WHITEHEAD

No assumption of modern psychiatry enjoys greater acceptance than the belief that human personality is more plastic in infancy and childhood than in later years. Although widespread today, the belief belongs to modern times. The writings and practices of ancient Greece and Rome showed great concern for the education and training of children; and no less for those of adults. We cannot say exactly when the modern emphasis on childhood training and relative neglect of adult training began. In the 16th century St. Ignatius made a clear statement of it. He declared that if he could have the teaching of a child until the age of 6, he did not care who instructed him afterwards. He firmly believed that nothing could undo the teachings of the early years. From about this time on, a belief in the paramount importance of childhood experience in the formation of personality forms a central doctrine of many systems of psychology(1, 2).

A balanced view of the contributions of heredity and environment to human personality slowly emerges in our literature(3, 4). Extreme positions in this old controversy no longer appeal, and none will be adopted in this paper, for the question at issue is not whether environment or heredity contributes more to the formation of human personality, but whether the contribution of environment occurs unevenly. The environment plays upon the organism from the moment sperm and ovum unite until the end of life. *A priori*, we have no grounds for believing that the environment exerts greater force at one period than at any other. Some proponents of this belief have said that the helplessness and necessary dependency of the infant upon his parents account for his susceptibility to their influence, but this is to offer an explanation of an assumption rather than a foundation for it. Helplessness and dependency do not necessarily render the personality more malleable if we may judge by the behavior of the sick and the aged.

Diverse observations made over the past 10 or 15 years throw doubt on the assumption of an uneven distribution of environmental effects. Taken together they provide a rather formidable obstacle to its acceptance. They do not disprove the assumption, but they threaten seriously the claim that it is already proven. I shall consider the data which have brought me to this conclusion under 4 arbitrary headings, any one of which may include material relevant to another aspect of the problem.

REVIEW OF RELEVANT DATA

CHILD TRAINING PRACTICES AND THE LATER FORM OF THE PERSONALITY.

The literature of psychiatry abounds in articles asserting causal connections between the early experiences of life (especially training practices) and the later personality. The far fewer articles reporting objective studies of such relationships fail to support the assertions made(5, 6, 7, 8, 9). Thurston and Mussen(5) contribute a review of earlier studies in addition to their own negative empirical study. Orlansky(8) and Lindesmith and Strauss(9) have reviewed the empirical studies and concluded that the published data fail to demonstrate a consistent relationship between child training practices and adult personalities.

Studies of the relationships between child rearing practices and adult personality frequently fail to define clearly the traits under scrutiny. A notable exception is the research of F. Goldman-Eisler(14) into the connection between breast feeding and the later exhibition of traits of "orality." Goldman-

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Eisler subjected the data derived from careful studies of her adult subjects to a factorial analysis from which emerged a definite correlation between the kind of breast feeding experienced (*i.e.*, early weaning or late weaning) and the later occurrence of certain personality traits (characterized respectively as orally ungratified and orally gratified types). The fact of a correlation is thus clear, but it is open to two interpretations. The later personality may arise from the impact of the earlier experiences, but Eysenck(15) has pointed out that genetic factors may also account for the correlation in the following way. The polar oral types (gratified and ungratified) correspond rather closely to the extravert-introvert dichotomy familiar in Jungian psychology. We may plausibly suppose that introverted mothers tend to have introverted offspring through genetic factors alone, and that introverted mothers also tend to wean their infants earlier than do extraverted mothers. Thus the established correlation may arise from either genetic or experiential factors. The question of which explanation is the correct one must await further research.

It may be objected that parents influence their children through their attitudes to the children and that the actual training practices they adopt are of quite secondary importance. This shifts the argument to another area, but one in which there are even fewer objectively derived data. Nothing is gained by inferring attitudes on the part of the parent from the specific child training practices for, as mentioned above, no causal connections have been demonstrated between the training practices and the later personality. Moreover, no correlations have been demonstrated between child training practices and the attitudes of parents towards children. Some authors have claimed, for example, that early bowel training implies compulsive rigidity on the part of the mother or that late weaning reveals indulgence and affection. Yet the same training practices occur in widely different cultures in which the parents seem to take up quite different attitudes towards the children. One particular training practice, *e.g.*, restraint of infants, may occur in many different cultures, but in each of these cultures occur other child training practices which differ(8). The occurrence of one or even several particular child training practices permits no valid inference either about other training practices in the same family or culture, or about the over-all attitude of the parents to the children(10). The statements of patients concerning the attitudes of their parents towards them as children obviously deserve no credence when we are studying the origins of the personalities of the patients. In the first place, these personalities may have provoked the alleged parental attitudes, and secondly, patients can wildly distort the attitudes of their parents in reporting them.

When it becomes possible to observe, rather than merely assume the attitude of parents towards children, an important connection between these attitudes and the behavior of children can sometimes be demonstrated. Johnson and Szurek studied a number of children and their parents in therapy. In this way they related the attitudes and suggestions of the parents to the children and the behavior of the children. Parental attitudes and impulses, often unconscious and communicated covertly, promoted a wide variety of psychophysiologic and sociopathic symptoms in these children(11, 12, 13). Nothing could demonstrate better the influence of one human on another. But the questions of interest to us here are whether parents exert a permanent influence on children and whether they exert a greater influence on children than upon each other. These questions the studies of Johnson and Szurek cannot, and were not intended to answer.

CHILD TRAINING PRACTICES AND THE OCCURRENCE AND FORM OF LATER MENTAL ILLNESS

If the experiences of childhood importantly influence the later personality, we should expect to find some correlation between such experiences and the later occurrence of mental disorders. In fact, no such correlations have ever been shown.

Moloney reported an exceedingly low incidence of mental illness among the Okinawans(21). He concluded that the child rearing practices of the Okinawans (which include a great deal of oral gratification and

affection) fortify them against the occurrence of mental illness; yet Moloney's figures of admissions to hospitals for mental illness provide no reliable estimate of the real incidence of mental disease in Okinawa. At the time of Moloney's observations, the admissions to hospitals for psychiatric disorders must have reflected quite inadequately the incidence of mental illness among these people. Moloney himself comments on 3 factors which alone would throw doubt upon the usefulness of the figures he quotes. There were almost no psychiatric facilities on the islands; the natives kept the mentally ill at home; and they treated the mentally ill with derision and more serious forms of cruelty, including physical violence. (Parenthetically, this last feature of their behavior might make one doubt the purported absence of mental illness which in Moloney's paper was apparently defined as psychosis.) These factors would all tend to reduce the admissions to hospitals, but not the occurrence of mental illness.

But apart from the questionable validity of Moloney's figures, a study of Okinawans in Hawaii (where the Okinawans continue the same child rearing practices) showed that this racial group has a considerably higher incidence of mental illness than other racial groups in Hawaii(17). Thus even if we grant that Okinawans adjust well to the circumstances of their own islands, they apparently adjust less well than other groups to certain changed circumstances and have no special immunity to mental disorder.

If good mothering does not confer protection against mental disorders, it may be that bad mothering or lack of mothering promotes mental disorder. On this subject there are more data, although none that can permit generalizations. Anna Freud studied a group of children who had been unusually deprived, through the exigencies of war, of all that is generally considered necessary in the way of good mothering care(23). Yet these children made remarkably good adjustments, perhaps since they were in a group obtaining from each other what they did not get from a mother. This subject will be taken up again later.

It is frequently alleged that parental attitudes contribute to the formation of a personality specially susceptible to schizophrenic reactions. Yet different studies on the parents of schizophrenic patients fail to show consistent portraits of the personalities of the parents or to confirm the popular stereotype that the mothers are excessively anxious, domineering and solicitous with regard to the child who later becomes schizophrenic (16, 17, 18, 19). Moreover, the parents of a child who later becomes schizophrenic more often than not have raised other children who developed normally. No doubt studies of environmental influences on the formation of personalities predisposed to psychoses labor under severe handicaps. This should make us more rather than less cautious in attributing psychoses to such influences. We should be all the more cautious in view of the much clearer evidence of important genetic factors underlying psychoses(20).

That the forms of mental illness vary widely in different parts of the world is abundantly clear from comparative studies (24, 25, 26, 27). Some of these differences arise from disagreements between different cultures as to what constitutes a mental illness. Forms of behavior which are considered psychotic in our culture may find acceptance and even approval in another. However, apparently similar mental disorders, *e.g.*, schizophrenia, do show somewhat different forms in different cultures(25, 27). Psychotic patients in India(25) and in Japan (26) apparently exhibit much less violent behavior than is customarily seen in the mental hospitals in the West, but we have no data which might permit us to attribute such differences exclusively to training in infancy. For in India passivity, and in Japan obedience and obligation, form a central part of the training not of infants only, but of everyone of any age.

THE EFFECTS OF ISOLATION IN CHILDREN AND ADULTS

That the isolation of children from other human beings can exert a markedly destructive effect on personality has been known for centuries(28). Recently a number of studies have tried to sharpen our understanding of the effects on infants and children of isolation and the concomitant deprivation(29, 30,

31, 32). The work of Spitz has drawn widespread attention and been generally interpreted to confirm the importance of adequate mothering during infancy and childhood. Spitz compared 2 groups of infants who were apparently raised in similar physical circumstances. One group received abundant mothering, while mothering attentions were sharply curtailed in the other group. The second group compared to the first, showed an increased morbidity and mortality and a failure to develop. Pinneau has criticized Spitz's work on the grounds that he failed to allow adequately for a number of factors which could have accounted for the differences between the 2 groups, *e.g.*, genetic differences, and different exposures to diseases such as measles which carried off many of those who died in the deprived group(33). But even if we grant that Spitz's data support his conclusion concerning the harmful effects of isolation on infants, two further questions remain. Are such effects any less in adults? What is the duration of such effects on infants? I shall take up the first question next and return to the second later.

In general human beings are rarely as cruel to adults as they often are to children. It is difficult to find an adult situation which resembles exactly the predicament of institutionalized infants. One approximately comparable situation may occur during the artificial reduction of sensory stimuli as in the experiments of Heron(34, 35) and Lillie (36). The subjects of these experiments were isolated almost completely from sensory stimuli. Institutionalized infants are usually isolated from close human (so-called affective) contact rather than from all sensory stimuli. However, in the "Foundling Home" studied by Spitz(30) the babies received a greatly reduced sensory stimulation due to screening sheets around the cots and high walls between the cubicles. Such features make the situation of these infants resemble rather closely that of the adult experimental subjects under discussion, although there are also differences.

In the experiments with adults, the subjects experienced tension and anxiety which were followed in those who could stand the experience long enough by marked disorders of perception and thinking. Hallucinations and delusions occurred in some of the subjects. Few subjects could tolerate these experiences for more than a day or two at most. For this reason the possible effects of prolonged sensory isolation could not be estimated from such experiments.

Another adult situation with some resemblance to that of institutionalized infants occurred in concentration camps(37, 38, 39, 40) and in some camps for prisoners of war (41, 42). In these camps the prisoners were not isolated from other people or from stimuli. However, the people with whom they were in contact were unable to provide them with anything like the usual amounts of psychological support because they were either hostile guards or fellow-prisoners who were in the same desperate plight themselves. It cannot be said that loss of affection was the only stress to which the prisoners were exposed. Most suffered from malnutrition and many were subjected to physical maltreatment. However, it seems reasonable to conclude that the main stresses were psychological from the following facts: first, marked responses occurred almost immediately and before the effects of starvation could have influenced behavior; secondly, the psychological responses were greater than those accompanying starvation alone(43, 44); and thirdly, the responses to the situation were far from uniform among those who were receiving the same diet and mistreatment. Different responses could be correlated with different attitudes and personalities(38, 42). Parenthetically, children adapted to concentration camps much more readily than adults and the aged least of all(37).

Turning to the observed responses of inmates of concentration camps and prisoners of war camps, we find an extraordinarily high incidence of psychological disturbances. Severe apathy occurred almost universally; almost as common was the exhibition of fiercely self-interested and hostile behavior. For many prisoners the psychological effects were even more devastating and extended to stuporous states, dissociated states and death. Some of the inmates deliberately committed suicide by annoying the guards to the point

where the guards shot them or by running against the electrified wires around the camp. Many prisoners died without sufficient apparent physical cause and hence presumably from the psychological effects of their situation. It is naturally impossible to estimate the incidence of psychoses, suicides, and other deaths from psychological reasons in these camps, nor is it possible to estimate the total duration of the effects, although for many persons the effects are known to have lasted for many years.

As I said earlier, the experiments of sensory isolation and the stresses of concentration camps certainly do not exactly resemble the situation of institutionalized infants. Nevertheless the situations have enough resemblance to permit a comparison in which adults appear no stronger than infants. The point of making such a comparison is not to suggest that infants cannot be damaged by isolation, but to remind ourselves that adults are no less vulnerable. The response of infants to isolation is not an infantile one, but a human one. Studies of the effects of isolation on infants teach us the importance of affection to all humans; they cannot prove its greater necessity for children than for adults.

IMPERMANENCE OF PSYCHOLOGICAL SYMPTOMS OF CHILDHOOD

Many studies on institutionalized infants and on children with psychological disorders have not included lengthy follow-ups to observe their later course in life. In the studies of institutionalized infants by Spitz(30, 31, 32) and Bender(45) the children were followed only to early childhood. Gorldfarb (46, 47, 48) followed a similar group of infants into early adolescence. In all these observations although the children showed variations in development, in general their maturation and adjustments fell far behind those of children raised under normal circumstances.

However, Beres and Obers(49) followed into late adolescence and early adulthood a group of infants who had been reared in institutions comparable to those of the other studies cited. Of this group approximately half were judged to have made a satisfactory social adjustment. This seems like a remarkable degree of improvement, especially in view of the fact that such children are poorly endowed genetically, having usually unmarried or mentally ill mothers.

Caplan studied the children raised in the communal agricultural settlements of Israel (50). The rearing of these children is largely in the hands of professional workers who care for groups of children. The children live in nurseries and later in schoolhouses with other children of the same age. They spend some time with their biological parents, but nearly all the training and discipline are in the hands of the professional workers. Any one child will experience two changes of workers between birth and 3 years of age. The children become strongly attached to the members of their own group who apparently signify as much for them as do the members of their biological families. They usually remain with the same group until adolescence. The important observations of these children are that in their early years they show marked signs of psychological disturbance, *e.g.*, temper tantrums, thumb-sucking, and enuresis, but that in adulthood they are remarkably healthy both physically and mentally.

A somewhat similar transformation was observed in a group of 54 severely shy, anxious and withdrawn American children, who were disturbed enough to be examined in a child guidance clinic(51). At the time of the original evaluation, the children had a median age of about 7 years. They were then studied again 16 to 27 years after the initial evaluation. Two-thirds were found to be making a satisfactory adjustment and one-third a marginal adjustment. Those in the latter group were distinguished from the former by not fulfilling all their potential or deriving as much enjoyment from life as seemed possible. Nearly all of these children had married when they reached adulthood; many had married outgoing wives with whom they shared an active social life. Of the entire group only 2 were considered ill and only 1 of these was schizophrenic.

Discussion

The data reviewed above throw doubt upon the belief that the events of infancy and childhood are necessarily more formative of personality than those of later years. None of the data reviewed conflicts with the established fact of human influence on human beings, or with our knowledge that the impact of one stress with a resultant strain modifies the response to a succeeding stress. What comes first influences the response to what comes after. The events of infancy and childhood will always have much importance because of their temporal precedence, but perhaps not because of any special fragility of the personality in those years.

This raises the question of the duration of the effects of a particular experience. As already mentioned, the assertion that the events of infancy and childhood always exert a special influence in forming the adult personality is still a statement of opinion, not of fact. Nevertheless, there are many reactions of adulthood which seem to repeat or imitate those of infancy and childhood. We may account for such resemblances in a number of ways without recourse to the hypothesis of a special impressionability of the personality in infancy and childhood.

Origins of resemblances between behavior in childhood and adulthood

The first possibility in accounting for such resemblances is that a conditioned response fails to extinguish because of some innate characteristic within the subject. Experiments in conditioning show that extinction of a learned response ordinarily occurs rather steadily in the absence of further reinforcement. The learned response is greatest immediately after the conditioning experiences and lessens progressively. However, we know that fears and other learned responses often fail to extinguish and, on the contrary continue an active and irrational course for many years. But we also know that the same events which stimulate such unextinguishing fears in some persons fail to do so in others. They may even have the opposite effect. An event which proves traumatic to one person may strengthen another. The difference presumably lies in the way the event is experienced; that is, in the response the person makes to the stimuli which events bring him. But we have no reason to believe that infants are more liable to experience events in a fearful way than are adults. The capacity to acquire a fixed, irrational fear or other learned response is found in adulthood as much as in childhood, and perhaps more so.

Years ago, Breuer and Freud(52) remarked that "the hysteric suffers mostly from reminiscences." This is true, but it does not follow and has never been shown that the events of which the reminiscences are partial and distorted memories differ significantly for such patients, (or other patients with psychological disorders), from those experienced by other persons. As already suggested, the events of childhood may be experienced differently by the psychoneurotic patients. Or alternatively, the patients' childhood experiences are not unusual, but the patients later attribute a painful quality to them when viewed retrospectively from the current discomforts of adulthood, and mixtures of these processes may occur, because when a person has difficulty in mastering a current conflict, he can readily find comfort in attributing his difficulty to previous supposedly damaging events.

Resemblances between infantile or childish and adult responses may occur also when a series of reinforcements has followed the first harmful experiences of childhood. One harmful stimulus may succeed another so closely that the infant or child cannot recover his balance in time to react favorably to any event. This is perhaps an important factor in the devastating effects of institutions on infants and of prison camps on adults. The stress is unremitting and harmful effects sustained. We have then not a personality "fixed" by early harmful events, but one bombarded by a continuous succession of harmful events. However, in ordinary life this situation must be rather exceptional. Few children meet unremitting cruelty or neglect. Suffering children rather readily evoke a tender response in those around them. Most children encounter opportunities to unlearn whatever negative responses they

may previously have learned. If they fail to do so we can as plausibly attribute the difficulty to an innate defect of responsivity as to the severity of the previous stresses.

The most harmful of all experiences seems to be a deprivation of stimuli. Apparently growth cannot occur in the absence of stimuli from the environment. Institutionalized and isolated infants lack this stimulus and so fail to develop the qualities necessary for growth promoting contacts at the next stage of development. They thus fall behind their more stimulated contemporaries. But like those children who receive harmful stimuli, many of these isolated children do respond later to stimuli when they receive them. As mentioned in the preceding review of data, many of them eventually "catch up" with other more fortunate children of the same age(49). Since some institutionalized children can respond favorably to stimulation after infancy, the different responses to later experiences may lie in constitutional qualities rather than in the severity of deprivation.

Resemblances between childish and adult responses may occur when both express the unchanged character of the personality without having any causal connection. Infants at birth show wide variations in their spontaneous behavior and in their responses to stimuli(53, 54, 55, 56, 57). They exhibit the *anlage* of their fully developed characters. For example, Gesell(58) demonstrated in young infants the first expressions of fundamental traits of personality, *e.g.*, motor activity, affection, humor, curiosity, tolerance for frustration, etc. The infants studied showed these traits before the impact of parental behavior could have had anything to do with their origin. At 5 years of age the children exhibited the same traits, although in a more developed form, with remarkable consistency. It seems reasonable to suppose then that many of the responses of infancy and childhood may be not the causes of character, but their expression. To say this is not to deny that character can be changed through experiences, but as mentioned earlier, it is changed by the way in which events are experienced rather than by the events themselves.

Still another resemblance between infantile and childish responses may occur in the process of regression, in which the adult returns to a previous pattern of behavior. But regression indicates a current stress too great for mastery. Like sleep, it is something of which we all are capable. The fact of returning to childlike behavior does not mean that the events of childhood were especially severe, or even especially important for the personality who regresses, although they may have been.

There exist then a number of ways in which adult responses to stress may come to resemble infantile or childish ones. In each of these ways we can account for the resemblance without the hypothesis of a special impressionability of the infantile personality which would make the events of the early years necessarily more important to the growth of the personality than those of later years.

SIGNIFICANT DIFFERENCES BETWEEN THE PERSONALITIES OF CHILDREN AND ADULTS

The problem may receive some further clarification from considering the important differences between the personalities and behavior of infants (and children) and adults.

We know that infants lack coordination and skill in the use of their musculature. We may assume, although we cannot positively know, that infants also lack the organization of perceptions and thoughts which comes in later life; yet we cannot deduce from these facts and assumptions a greater sensitivity to environmental influence. If we were to accept a comparison of the infantile mentality with that of the dreamer or the delirious patient, we would expect the infant to be less susceptible to outside influences than he is when his mind is more fully developed.

Impressionability in infants and children may arise from another important difference between them and adults. Infants and children lack past experience (memory) with which to evaluate current events, but this means that events have a different significance for the infant and child than for the adult. The infant and child respond to events according to their meaning for them. We have no grounds for believing that events are necessarily more meaningful or more fre-

quently given harmful meanings in infancy than in adulthood. They simply have different meanings. If you take a toy away from a child, he will probably cry, but if you tell him the mortgage has been foreclosed he will probably go on playing with the toy. We have no proof that within the world as he sees it, a stress is any harder to bear in infancy than in adulthood.

The experiential deficiencies of children do, however, place them at a special disadvantage in relationships with adults. Their fund of information is largely drawn from the supplies of parents. Children are like the country bumpkin in the hands of the city slicker. They are the perpetual captive audience of their parents. Their ignorance makes them more suggestible than adults. However, tests of suggestibility show that this reaches a peak in the years from 7-9 and thereafter falls off, being lower for obvious reasons in infancy and also in adulthood(58). In view of the marked influence of suggestion on personality, we may eventually have to ascribe special importance in the formation of personality to the years 7-9 as much as to the years of infancy and early childhood.

The physical helplessness of children which ties them for many years to one family greatly reduces the opportunities for the correction of faulty information provided by the parents. The ordinary adult has many more opportunities for increasing his experiences than the child who must largely live in a world of experiences chosen for him. The immobility of the infant makes him particularly dependent upon adults for stimuli with which to grow. (The prisoner in a concentration camp has the same inability to modify his experiences). Thus it happens that a great many persons reach adulthood with large areas of living completely unexplored. Some of the impression that personality becomes fixed in childhood may arise from the widespread constriction of experiences in many children and adults. Their personalities fail to change, not because they have permanently jelled, but because they never have the new experiences which seem essential for any change. Parenthetically, psychotherapy provides one kind of intense contact which can modify and undo the efects of the experiences of childhood. Psychotherapeutic transformations of personality in adulthood should additionally warn us against viewing the adult personality as rigidly fixed in childhood.

Infants and small children exhibit a further difference from adults which at first glance may seem to make them more sensitive to environmental stimuli. Their emotions are less organized, less inhibited, and less suited to the occasion than those of most adults. Excessive or inappropriate emotional expression perhaps more than any other quality gives rise to the epithet "childish" when seen in adults. Yet from the fact that children's emotions lack the refinements of direction and discharge found in most adults, we cannot argue that children are thereby experiencing more durable effects from the events to which they respond. Such durable harmful effects seem to come much more often from the inhibition of emotional expression than from the reverse. Indeed, there may be a connection between the ability of children to express emotions freely and their well-known resilience to frustration. Very commonly a punished child becomes ready to forgive an angry parent long before the parent has recovered from his own anger (or guilt). Such resilience in turn probably accounts for the rarity in childhood of the prolonged hatreds and guilts which burden so many adults. As mentioned earlier, children adapted best of all to the horrors of concentration camps, and they can adapt in ways astonishing to adults to a wide variety of new situations. Such adaptibility is not consistent with the view that children are more liable to show lasting effects of stresses than adults. What we know of the emotional life of children suggests that they may indeed be more impressionable than adults, but also more expressive of responses and less retentive of harmful effects. In short, their minds may be wax to receive, but not marble to retain the imprint of events.

This review permits no conclusions on this topic, except of the need for research. Such research may ultimately confirm in a scientific manner the belief that human personality is more plastic in infancy and childhood than in adulthood. Alternatively, it may show this assumption to have been a scientific myth. A

third and more probable result may be the demonstration that the human personality is more plastic during the early years in certain modalites and less plastic in others, and similarly we may find that adults can change more readily than children in some areas and less so in others.

Summary

The article reviews data, much of rather recent origin, bearing on the assumption that human personality is more plastic in infancy and childhood than in adulthood. The available data permit the following conclusions:

1. We have no compelling evidence of a predictable relationship between child training practices and later personality.

2. Severe psychological stresses can have as marked effects in adulthood as in infancy and childhood, sometimes having greater effects in adulthood than in childhood.

3. Important personality changes occur after childhood (in the absence of treatment) including the disappearance of marked psychological disorders.

4. Infants reared according to ostensibly ideal methods of infant care show no greater immunity to mental illness than do other children reared differently. Infants reared under apparently inadequate or harmful circumstances do not necessarily develop psychological disorders.

5. Resemblances between patterns of behavior in children and adults can be explained without the hypothesis of a special impressionability or vulnerability of personality in childhood.

6. The initial immobility and the prolonged physical dependency of children upon adults places them at a special disadvantage in that they cannot readily change their environments to obtain new experiences. A lack of new experiences may give to the personality a pattern which appears more fixed than it really is.

The assumption that the human personality is more plastic in infancy and childhood than in adulthood remains unproven. Neither is it disproven. We need much further research in this area and this research may eventually show that the human personality is more plastic during childhood in some respects, but not in others.

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DUPLICATION, DOUBLE ORIENTATION AND FUSION[1]

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In a recent article(4) it was pointed out that disorientation is not a uniform phenomenon, always following the same pattern, but that its pattern varies depending on its cause. The disorientation of toxic delirium differs from that seen in some cases of schizophrenia, which in turn differs from that seen in some cases of brain tumor.

Duplication and double orientation are among the symptoms that have come under study in consequence of the recent surge of interest in the more complex manifestations of tumor and other cerebral lesions. As an example, a patient at the Mt. Sinai Hospital (7) thought there were two hospitals of that name, the one in which she was at the moment being four blocks from home. In reality she lived six miles from the Hospital.

Three cases will serve as a starting point for this discussion:

1. Kubie(1) made an observation in Penfield's operating room. While counting slowly from one to 10 the operator stimulated "a certain temporal area," whereupon "the patient said, 'Now the numbers seem to be doubled,' an impression which ceased the instant the current was discontinued, the impressions fusing at once and becoming, in the patient's words, 'single and clear.'"

2, 3. Weinstein, Kahn and Sugarman's(7) patient M. S., who had a brain tumor, had a son William whom she usually called Bill. She now said she had twin sons, Bill and "Willie." Another patient had one living sister Margaret, nicknamed Maggie, and now she said she had two sisters, Margaret and Maggie.

Kubie's observation throws light on the function of fusion. A sound excites two auditory reception areas, one in each temporal cortex, but we hear *one* sound, not two, because a higher coordinating mechanism "fuses" the substrates of the two auditory images. If we disturb ocular fusion by dislodging the axis of one eye, we see double. In Kubie's case the stimulation caused the patient to *hear* double.

The double hearing occurred on stimulation. Does this mean that the area stimulated contains a "center for duplication"? This would be nonsense (and Kubie, of course, makes no such assertion). A center for duplication is inconceivable. The stimulation must have acted negatively, throwing a fusion mechanism out of kilter.

The effects of stimulation are not always positive. They may also be negative, an example being the unconsciousness of an epileptic fit. Physicians, like other people, are prone to take for granted things that are commonplace. It is a measure of Hughlings Jackson's insight that he recognized that the unconsciousness of an epileptic fit cannot be dismissed as something too obvious to need explanation, that on the contrary it is a paradox. Since the fit results from too much excitation, why, he asked, isn't the patient, if anything, "*hyper*conscious"? In answer to this question he said that the highest cerebral centers, the "organ of mind," cannot function properly when excitation is unbridled and lawless. The neural substrates of ideas and images are complex, and their function presupposes an orderly and harmonious sequence of excitations properly timed and coordinated. He suggested an analogy. If one might suppose a "locomotor center" in the brain, an epileptic discharge therein would not cause the patient to run fast; on the contrary it would bring locomotion to a halt, for locomotion demands a harmonious pattern of excitation in proper time and sequence.

There comes to mind the analogy of a legislative assembly, that does its work by means of orderly parliamentary procedure and decorum. The members speak one at a time. If everyone talked and shouted all at once the result would be, not quicker action, but paralysis of action.

And so in Kubie's case the stimulation must have acted negatively, interfering with the action of a fusion mechanism.

Fusion is involved also in the cases of Weinstein, Kahn and Sugarman already cited. If a man has a sister named Margaret and nicknamed Maggie, he normally would

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know that "sister Margaret" and "sister Maggie" are one. In these two cases the relevant fusion mechanism was paralyzed by disease.

Normally one can tell whether an incongruity is real or only illusory. John Smith is a son, and also a father, but only a sick man would say this is incongruous and there must be two John Smiths.

Thus faulty thinking can come from an insufficiency of fusion. It can also come from *too much* fusion. Some patients fuse concepts that should be kept separate. They fail to differentiate. They may fail to differentiate symbol and object. Thus a schizophrenic woman in a mental hospital, speaking of a movie actor whom she admired, said, "He was smiling at me." Inquiry showed she had been sitting in the day room opposite someone who was holding up and reading a movie magazine whose cover bore a picture of the smiling actor. She failed to differentiate the man from his symbol, the picture. Children pass through such a stage. Seeing a picture of a toy in a book, they will try to lift the toy out of the page. Patients who fail to differentiate symbol and object, abstract and concrete, shadow and substance, figurative and literal, etc., show a loss of the "capacity to split"(2, 3).

Hamlet understood all this. He took pains to assure his listeners that he knew a hawk from a handsaw (*handsaw*: a corruption of "heronshaw" or heron).

Adaptation requires two things. We must differentiate, or "split," things that are separate though they look alike. We must also fuse things that are one though they look different; we must recognize that sister Margaret and sister Maggie are one. To paraphrase the Preacher in *Ecclesiastes*, there is a time to split and a time to fuse.

We turn now to a more complex instance of duplication, exemplified by the patient who said there are two Mt. Sinai Hospitals, one in Manhattan (correct) and the other near her home in another borough, the Bronx. This is more complex than the Margaret-Maggie duplication. In the latter instance the patient did not invent anything; sister Margaret and sister Maggie were realities and she erred only in failing to recognize their unity. By contrast, in the former the patient invented something that does not exist, for there is no Mt. Sinai Hospital in the Bronx.

The key to this duplication of the Mt. Sinai Hospital lies, I submit, in the association of ideas. No concept can be fully understood in terms of its literal definition. The term "Mt. Sinai Hospital" can be defined in just a few words, but its meanings and implications to a sick man would fill a volume. There is almost no limit to the associations that surround even the simplest of concepts, let alone such affect-laden concepts as mother, father, wife, child, home, and hospital. The hospital, which people dread, is yet a refuge, a place which offers relief from pain, and so is associated with home, mother, and similar concepts. This association finds its ultimate expression in the delirious patient who mistakes the hospital for his home (though I do not mean to say that this is the explanation of the misidentification). Perhaps the invention of a Mt. Sinai Hospital in the Bronx is an intermediate step in this direction. It may be significant that as Weinstein and his associates as well as Paterson and Zangwill (6) and Nathanson, Bergman and Gordon (5) have found, in duplication of place in respect of the hospital, the phantom hospital is usually closer to home than the real one.

It is clear that tumor and other cerebral disease can interfere with the action of fusion mechanisms, causing duplication from failure of fusion of two related images. Fusion is a complex function, as complex as the artistic skill that enables the members of an orchestra to play as one man. Loss of fusion reminds one of a team of horses that operate in unison with the aid of a coordinating mechanism consisting of shaft, reins and halters, without which they would act as two.

The question arises: Why only duplication? Why don't some patients say there are three Mt. Sinai Hospitals, or four or a dozen? The answer can only be surmised. Perhaps it has to do with the fact that there are two cerebral hemispheres. The substrate of an image is a complex thing which is certainly not localized in a small cerebral area but takes in the greater part of one or both hemispheres. The existence of duplication shows that there is "room" for the simul-

taneous activation of the substrates of two related images—perhaps one substrate primarily if not entirely in each hemisphere. Perhaps the activation of two such substrates keeps enough cerebral tissue "busy" to preclude activation of a third.

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NARCOTIC BONDAGE[1]

A General Theory of the Dependence on Narcotic Drugs

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The large number of narcotic drugs that can throw the patient into narcotic bondage produce a correspondingly sizeable variety of clinical pictures, each with certain fundamental characteristics common to them all. As the severity of the disorder increases, the conspicuous differences traceable to the chemical individuality of each drug tend to recede, and the clinical picture comes to be uniformly dominated by the same essential pathology. This fact suggests that we need first a general theory of narcotic bondage, that will in turn lead to the construction of a special theory for each drug or group of drugs. After a preparatory study in 1926 (1a), in 1933(1b) I attempted to evolve a general theory of the dependence on narcotic drugs, using Freud's libido theory as my conceptual framework. This paper proposes to re-examine the subject in the light of added experience and from the point of view of adaptational psychodynamics(2).

Under this revised system of psychoanalytic thought, dependence on narcotic drugs is regarded as a malignant form of miscarried repair artificially induced by the patient himself. Since our chief investigative concern is motivation, let us first find out what the patient believes the drug does for him. If we can win his trust and confidence, he gives us the following invaluable information: "it puts an end to my despair; it makes me feel happy; it restores my self-confidence; and, it does all this in a moment, without any effort on my part. The drug is a miracle. I cannot live without it."

We often find that at the time the patient first took the drug, he was in a state of depression. Suffering from a prolonged illness or from reverses in life, he felt he was unable to make a go of it. He blamed himself and others, sometimes even the one he loved most; embittered, he desperately longed for miraculous help. This prodromal depression is a precipitating etiological factor, because it sensitizes the patient to the psychodynamic action of the narcotic drug.

By removing pain, relaxing inhibitory tensions, inducing pleasure and facilitating performance, narcotic drugs produce a narcotic pleasure-effect. Conversely, every drug which produces this effect must be classified as narcotic. The average patient, upon therapeutic administration of the drug, responds to its pleasure-effect with a sense of relief and satisfaction. But the patient who is about to develop drug dependence behaves differently, presumably because he has a special predisposition which may be twofold, biochemical as well as psychodynamic. In any case, he has a long previous history showing marked intolerance and fear of pain, and strong though often overcompensated dependency needs indicative of a lack of emotional maturity and security. Sensitized by his depression, he sees in the narcotic pleasure-effect fulfillment of his longing for miraculous help, and responds to it with a sense of personal triumph, a surge of overconfidence: he gets drunk with success. We call this exalted reaction narcotic intoxication or narcotic elation. It is of utmost importance to realize that narcotic intoxication is not limited to alcohol, but is equally characteristic of all narcotic drugs whose misuse society condemns, thereby forcing the patient to hide his elation—as much as possible even from himself.

Scrutinizing the patient's history, one sees that frequently a single experience with narcotic elation suffices to set up in him a narcotic craving of extraordinary and ever growing strength. To explain this remarkable reaction, we must penetrate into the deepest and oldest strata of the mind formed during the early stages of ontogenetic development.

The young organism's first image of itself

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is of proprioceptive (kinesthetic) origin. Enchanted by its ability to move, it attributes unlimited power to its intentional actions and pictures itself as an omnipotent being. This self-image constitutes the representation of the total organism at psychodynamic levels and presides over the integration of its behavior: we call it the primordial self. From this vantage ground the infant views his parents, upon whose ministrations he depends for his survival, as deputies who exercise his magic powers for him.

The grown organism lives under a more or less realistic system of self-government presided over by an adjusted though lovingly retouched self-image called the tested self. This image derives from and inherits the organizing functions of the primordial self, which now has become the hidden core of the organism's desired self, the secret aim-image of its most deeply repressed aspirations.

If in the adaptive struggle for existence self-government fails, the organism may seek to strengthen its tested self with regressively revived features of its primordial self. However, such repair work is bound to miscarry, since the resulting aggrandized self-image can only undermine realistic self-government.

This also applies to the intoxicated patient. The sudden change from pain to pleasure, from inhibition to facilitation has proved to him by the full weight of an actual experience that, after all, he is the omnipotent giant he had always fundamentally thought he was. One may be tempted to view the patient's grandiose picture of himself as a harmless illusion bound to collapse as soon as the wave of elation subsides. However, closer examination of the clinical facts leads to a different conclusion.

Narcotic elation is followed by sleep and in turn by the morning after. The patient's depression returns deepened by fresh guilty fears and made more painful by the contrast. Yesterday he was a giant to whom responsibilities looked small; today he is small and his responsibilities loom in gigantic dimensions. His situation is worse than before; he feels he must recapture yesterday's grandeur by taking another dose. Thus his craving for elation develops. Augmented by concomitant physiological changes, it builds up in him ever-increasing tensions which can be discharged only by means of a fresh elation. Henceforth, every phase of elation leads to a phase of narcotic craving for elation, thence to taking the drug, which brings forth another phase of elation, and so forth in a cyclic course. A narcotic system of self-government, founded on dependence on the intoxicating drug, is established.

The interdependent phenomena of elation and craving for elation show that the patient's grandiose idea operates with delusional strength. This interpretation is further corroborated by the patient's subsequent behavior: he ignores the difficulties and hardships to which he will soon be exposed. To begin with, failure of the pleasure-effect forces him to combat his rising physiological tolerance to the drug by increasing the dose to quantities which he may find hard to obtain. He may be visited by illness after illness resulting from the drug's toxic side-effects. The intoxicating pleasure-effect of the drug diminishes his appetite for food and often destroys his capacity for standard sexual union. His relatives and friends implore him to stop and save himself from certain ruin. While aware of these facts, he nonetheless insists on taking the drug. In an unguarded moment he gives away his secret: "Nothing can happen to me." Though his powers of reasoning and judgment appear to be otherwise unimpaired, he believes unshakably in his personal invulnerability and immortality. The patient's image of himself as an omnipotent and indestructable giant must be clinically described as a thinly veiled narcotic delusion of grandeur rooted in the drug which has produced the intoxicating pleasure-effect for him.

Paradoxically, even conscience tightens the patient's grip on his drug. His guilty fears and self-reproaches, strengthened by his defeated rages turned against himself, elicit automatic acts of expiatory self-punishment. To placate his conscience, his unconscious mind thus drives him to self-destruction by means of the drug(3); his conscious mind does not object because it believes that nothing can happen to him. Under the sway of its primordial self, the organism can unconcernedly behold its own march to death.

So far, we have traced the development of narcotic bondage through presumed predisposition, sensitization, narcotic pleasure-effect, intoxication, craving for elation, delusion, and failure of conscience, deriving this pathology from clinical observations; to complete our theory, we shall now examine the relation of this pathology to the organism's hedonic organization.

In adaptational psychodynamics we view the organism as a biological system operating under hedonic control(4). From the evolutionary point of view, hedonic self-regulation must be considered as a very early and fundamental feature of animal organization, perpetuated, like sexual reproduction, throughout the course of phylogenetic history. The pattern of hedonic self-regulation is already foreshadowed in the protozoa: the organism moves towards the source of pleasure and away from the cause of pain. It relies on the expectation that pleasure signals the presence of needed supplies or of conditions otherwise favorable to its survival; and pain the presence of a threat to its organic integrity. Hedonic self-regulation worked because primitive species survived and evolved into higher ones; where it failed the organism (species) died. In our species, it is firmly established at the hedonic level which is fundamental to all levels of psychodynamic integration.

Hedonic control extends over the entire life process as evidenced by the following elementary facts about the human organism: 1. its emergency control is based on the effective use of pain as a warning signal of damage(5); 2. in its pursuit of prosperity, effort and performance are spurred by the pains of deprivation, and are directed, facilitated and rewarded by a variety of pleasures; at the physiological level, the search for and the intake of food are accompanied by pleasures climaxing in satiation called alimentary orgasm(6); at the cultural level, activities toward cultural self-realization are greatly eased by the joys of performance culminating in the self-satisfaction of pride; 3. its primary incentive for reproduction is sexual orgasm attendent upon insemination, the act of integration which renders evolutionary sex differentiation biologically effective(7); 4. its conscience and conduct are shaped by an educational system based on reward and punishment, that is, on bestowing pleasure and inflicting pain(8).

Hedonic self-regulation advances from a biological to a cultural stage of development. In the infant, its design is still much the same as in subhuman species; however, during the period of growth and maturation this innate design undergoes highly significant cultural adaptations reflecting the cumulative influence of intelligence and learning, education and experience. In the last analysis, these cultural modifications of hedonic control are traceable to the increasing power of foresight which forces the organism to accept *delayed* reward in lieu of *immediate* reward. The extent to which such enlightened hedonic responses supplant the purely biological ones, is a measure of the adult's fitness for cultural cooperation.

The "magic" of narcotic drugs lies in their direct biochemical action on the brain, in their by-passing the prerequisite adaptive effort and performance; through this short-cut they surpass nature's ordinary rewards, and, whenever desired, lift the organism from pain to a pleasure intensified still further by the contrast. As a sort of super-pleasure, the drug's effect makes an irresistable appeal to the organism's hedonic control, displacing more and more the ordinary pursuits and rewards of healthy life. As we have seen, this substitution involves three mechanisms: one of super-pleasure, silencing the warning signals of danger; another of intoxication, ushering in a delusion which, uprooting the patient's reason, foresight and judgment, sanctions his craving; and a third, of conscience, paradoxically promoting the patient's narcotic self-destruction. And yet, viewed in the context of hedonic control, it is only a supporting part that these mechanisms play. The essential factor in the pathology of narcotic bondage is corruption of the organism's hedonic control by the super-pleasure of narcotic drugs. By wiping out the adult's enlightened hedonic responses, the absolute priority of super-pleasure reduces self-regulation to the precultural hedonic responses of the infant, aimed at immediate reward. In other words, corrupted hedonic self-regulation inevitably dehumanizes the patient's behavior: it is on this ground that we consider narcotic bondage a malignant disorder.

By tracing this delusional disorder to its biological roots, we have carried its psychodynamic analysis to the threshold of physiological correlations. During the last year or two, physiological experiments on animals have led to the discovery of "pleasure centers" in the brain, unexpectedly confirming our own hedonic theory. Electric stimulation of these centers gives the animal a unique pleasure reward strikingly similar to the super-pleasure induced biochemically by narcotic drugs.

Let me quote from a 1956 paper by James Olds(9). Using the Skinner method, animals with implanted electrodes were put into a "do it yourself" situation, where, by pressing a lever, they could stimulate their own brain. Dr. Olds says:

> The animals seemed to experience the strongest reward or pleasure from stimulation of areas of the hypothalmus and certain mid-brain nuclei—regions which Hess and others had found to be centers for control of digestive, sexual, excretory and similar processes. Animals with electrodes in these areas would stimulate themselves from 500 to 5,000 times per hour.
>
> Electric stimulation in some of these regions actually appeared to be far more rewarding to the animals than an ordinary satisfier such as food. . . . Indeed a hungry animal often ignored available food in favor of the pleasure of stimulating itself electrically. Some rats with electrodes in these places stimulated their brains more than 2,000 times per hour for 24 consecutive hours.

Experimental animals may become even more dependent on the super-pleasure of electric stimulation than do human beings on the super-pleasure of narcotic drugs. Whether or not animals also develop an analogous delusion for the exclusion of their natural life interests is an unanswerable question. But we do know that in the human organism, equipped with a vastly more complex brain, surrender to a corrupted hedonic self-regulation is brought about by the compelling means of a delusion.

In juxtaposition to James Olds' report, I would like to quote a few brief passages from 2 earlier papers of mine. The first was published in 1926(10):

> When a person adopts the practice of pharmacotoxic gratification, momentous consequences ensue to his whole psychic and somatic condition. The phenomena presented to the clinical observer in cases of morbid craving are so multifarious that in this brief survey we must confine ourselves to stressing certain fundamental characteristics. The changes are enacted principally, of course, in the abode of the libido, for erotic gratification by means of drugs is a violent attack on our biological sexual organization, a bold forward movement of our "alloplastic" civilization. Let us confine ourselves to morphinism and to the most "fashionable" method of administering the poison by means of the Pravaz syringe. To put the matter in a nutshell, the whole peripheral sexual apparatus is left on one side as in a "short circuit" and the exciting stimuli are enabled to operate directly on the central organ. I propose to term this phenomenon, which deserves to be distinguished by a special name, "metaerotism." With the advance of organic chemistry the manufacture of the most refined substances for producing sexual gratification is assuredly only a matter of time, and it is easy to prophesy that in the future of our race this mode of gratification will play a part as yet uncalculable.

In 1933 I wrote(11):

> What is immediately evident is the fact that the pharmacogenic attainment of pleasure initiates an artificial sexual organization. . . . The pharmacogenic pleasure instigates a rich fantasy life; this feature seems especially characteristic of opium-pharmacothymia. . . . The crux of the matter is, that it is the pharmacogenic pleasure-effect which discharges the libidinal tension associated with these fantasies. . . . The genital apparatus with its extensive auxiliary ramifications in the erotogenic zones falls into desuetude and is overtaken by a sort of mental atrophy of disuse. The fire of life is gradually extinguished at that point where it should glow most intensely according to nature and is kindled at a site contrary to nature.

We must remember that in the libido theory such terms as "libido," "sexual" and "erotic" were (and still are) used in a "wider sense" denoting desire for and love of pleasure, which might be non-sexual as well as sexual(12). Accordingly, "sexual organization" meant "pleasure organization," "peripheral sexual apparatus" meant "peripheral pleasure apparatus," etc. The appropriate name for the phenomenon I called "metaerotism" is "metahedonism." The point is that these early formulations firmly established the intoxicating pleasure-effect as the key to the psychodynamic action of narcotic drugs and, in the long view, as a threat to the future of our species.

Generally speaking, the prognosis of narcotic dependence is unfavorable, and the problem of rehabilitation extremely difficult. The crux of the matter is that the patient does not suffer from his illness; he enjoys it. Even if we succeed in influencing him

for a short time, we cannot expect his sustained cooperation. This attitude, consistent with his pathology, determines the plan for rehabilitation. The first task is to win the patient's consent and withdraw the drug, preferably in a specially equipped hospital and with psychotherapeutic support. Afterwards the patient should go on with psychotherapy, if possible while remaining in the hospital until the potential dangers of violence, suicide and relapse are sufficiently reduced. Without entering into the technical details of this delicate procedure, I wish to stress that its most effective component is the release of the patient's defiant rages and embittered resentments, restoring his self-respect and human dignity.

Aside from such protective measures, at this stage the decisive problem is the underlying disorder which first prompted the patient to cast his lot with the drug and which now will cause him to feel tempted again and again. We may divide our patients into three groups. In the first, drug dependence was precipitated by a so-called psychoneurosis or, in our terms, an "overreactive" or "moodcyclic" disorder; in the second, by a schizophrenic process; in the third, by the impatient agitations of a frustrated psychopath (the "extractive type" of our classification).

Of these three groups, we can make recommendations only concerning the first. Here the preferred method is reconstructive psychoanalytic therapy. The outcome depends upon the patient's inner resources and his life circumstances.

The belief that withdrawal of the drug alone suffices to free the patient from his bondage has unfortunately no foundation in fact. While it is difficult to gather dependable statistics, the available information indicates that the majority of the patients relapse within a few months and the remainder within a few years.

May I say a word about the future as I see it? Though the essential prerequisite for rehabilitation, withdrawal of the drug is a precarious procedure. The ideal solution would immunize the patient against the intoxicating pleasure-effect of narcotic drugs. The last few years have brought us the beginning of a physiology of pleasure; we may now look forward to a physiology of the narcotic pleasure-effect. By viewing the narcotic super-pleasure as a developmental derivative of alimentary orgasm, psychodynamics may even offer a clue to the search for its biochemical mechanism (13). I believe it possible that eventually biochemists will discover a method for the immunization of the organism against the narcotic pleasure-effect. Even if this hope materializes, shutting off escape into drug dependence, the patient will still be left with the problem of his underlying disorder.

Let me sum up. To achieve clarity, in our general theory we have separated the pathology of drug dependence from the pathology of the underlying disorder, applying to both the insights of adaptational psychodynamics. In this light, drug dependence is seen to be a self-inflicted process of miscarried repair; it transforms realistic self-government into narcotic self-government. Utilizing our previously suggested concepts of narcotic pleasure-effect, narcotic elation and narcotic craving for elation, we have shown that both elation and craving for elation are interdependent manifestations of a thinly veiled narcotic delusion of grandeur elicited by and rooted in the intoxicating pleasure-effect of the drug. This chain of pathological events was then traced to corruption of the organism's hedonic self-regulation by the effortless and instantaneous super-pleasure of narcotic drugs. Trapped by the subversive super-pleasure, the patient abandons his enlightened hedonic responses based on delayed reward, and reverts to the precultural responses of the infant, aimed at immediate reward. It is this dehumanizing consequence of a corrupted hedonic control that makes drug dependence a malignant disorder. Our hedonic theory of this disorder first outlined in 1926 and 1933 now finds striking corroboration in the animal experiments of James Olds concerned with the demonstration of "pleasure centers" in the brain.

From this malignant pathology we deduced the plan for rehabilitation: withdrawal of the drug; supportive and reconstructive psychotherapy whose goal is control of the potential dangers of violence, suicide and relapse, and, whenever feasible, eradication of the underlying disorder. Finally, we called

attention to the need for further advances in the physiology of pleasure, which may well open the door to the patient's expected biochemical immunization against the intoxicating pleasure-effect of narcotic drugs.

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CLINICAL NOTES

DETECTION OF CHLORPROMAZINE IN BODY FLUIDS

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The oxidation of chlorpromazine or its metabolites in strong acids serves as the basis for both quantitative(1) and qualitative(2) analytical methods. Color development in a sulfuric acid medium may be promoted by the ferric ion(2).

The rapid development of color in sulfuric acid is attended by the disadvantages that 1. the color is unstable, 2. naturally occurring chromogens may give considerable interfering color, 3. the ferric ion is highly colored, and 4. the reaction is limited to use with protein-free solutions. These difficulties may be avoided by using concentrated (85%) phosphoric acid as the solvent. The color developed in H_3PO_4 is relatively stable, natural chromogens are less highly colored, the ferric ion is present as a colorless complex, and all proteins tested give optically clear solutions with no tendency toward turbidity.

In H_3PO_4 chlorpromazine itself forms a red product having an absorption maximum at about 530 mμ. Chlorpromazine sulfoxide yields a violet product which has an absorption maximum with its midpoint at 540 mμ. Spectrophotometric examination of the urinary forms of the drug indicates that the predominant metabolite is the sulfoxide. This is in agreement with the reported metabolic disposition on the drug(3) and qualitative tests on urine should be run in comparison with the sulfoxide rather than pure chlorpromazine. Urine from patients receiving doses of the order of 200 mg. or more per day usually develops a strong violet to purple color in phosphoric acid alone and addition of ferric chloride is unnecessary.

When the ferric ion is used to accelerate color development one must exercise caution. The ferric ion has a well known tendency to form complexes with phenolic compounds and it is particularly reactive as a complex-forming ion with respect to salicylic acid and some of its derivatives. The validity of tests for chlorpromazine is dependent upon the elimination of various drugs as sources of interference. Notable among these is aspirin. Urinary derivatives of acetylsalicylic acid may include free salicylic acid as well as certain conjugated products of varying susceptibility to acid hydrolysis(4).

The procedure adopted in this laboratory is as follows: urine is mixed with 85% H_3PO_4 in the ratio 1:4. Within an hour color development is noted if the sample collection is made within 8-12 hours of the drug administration. When very small doses (of the order of 25 mg.) are given the color is feeble and considerable care must be taken to avoid confusion with color arising from natural chromogens. In such cases ferric chloride may be added to promote color development. Usually 0.1 ml of 1M ferric chloride to 5 ml of the test mixture is adequate. This test may be applied to cerebrospinal fluid or serum without interference due to turbidity. In the latter case the authors were unable to detect more than traces of chlorpromazine within 30 minutes of the i.v. injection of as much as 200 mg. of the drug. No positive test on cerebrospinal fluid has yet been obtained. Direct sunlight should be avoided in performing this test. Color development may not be complete for several hours when drug concentrations are low and it is advisable to re-examine the test solutions four or five hours after mixing the acid and urine. There appears to be no interference by reserpine. Reducing agents bleach the solutions, particularly when the ratio of water: acid is too high. The ferrous ion is very effective in this respect and photoreduction of the ferric complex undoubtedly hastens bleaching when the ferric chloride-containing solution is exposed to strong light.

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CEREBROSPINAL FLUID NEURAMINIC ACID DEFICIENCY IN SCHIZOPHRENIA

A Preliminary Report

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The neuraminic acid content of cerebrospinal fluid [2] was determined in individual specimens obtained in random diagnostic lumbar punctures performed on 90 general hospital patients, both children and adults, and 30 mental hospital patients, none of whose diagnosis was known. When the records were later consulted, 17 of the mental hospital patients were found to have the clinical diagnosis of schizophrenia. The mean content of the schizophrenic patients was found to be lower than that of non-schizophrenic mental hospital patients, and even lower than that of children under 7, whose mean value was much below that of the adult.

	Age in years	Number of patients	Neuraminic acid, in microgram/cc. C.S.F.	
			Median	Mean
Schizophrenic patients	20-62	17	37.5	36.6
General hospital children	0.2-6	54	41.0	42.7
General hospital children	7-16	26	46.0	46.2
Non-schizophrenic mental hospital patients	16-61	13	50.0	53.0
General hospital adults	27-57	10	56.0	61.5

Only 2 of the 17 patients diagnosed as schizophrenic had values above 40 (43 and 49). Only 4 of the 49 'non-schizophrenic' patients over the age of 7 had values below 40 microgram per cc. (37.0 in each case), but the examination of the clinical records of these 4 revealed that one was a 23-year-old male diagnosed as "obsessive-compulsive" who had had 3 mental hospital admissions; the second was a 13-year-old girl whose condition was diagnosed in a general hospital as 'conversion hysteria' because of 3 attacks of a negativistic coma-like state; the third was a 40-year-old severe 'psychoneurotic' who had been under psychiatric care for many years; and the fourth was a 12-year-old boy with no history of mental disorder.

While the number of patients studied does not permit any conclusion regarding the diagnostic value of this determination, the results to date would appear to indicate an important new area for further investigation. Thus, the tendency for the concentration of neuraminic acid to increase with age suggests a relationship to maturation. Low values in certain adult schizophrenic patients, comparable only to those found in some children under 7, might indicate a form of chemical immaturity.

Recent studies in this laboratory(1-3) have led to the development of the hypothesis(4) that the neuraminic acid-containing substances of both brain and cerebrospinal fluid, *i.e.* gangliosides, glycoproteins, and other conjugates, are involved in a "Barrier-Antibody System," which is concerned with the isolation of the brain from substances which pass readily from the blood to other tissues. This term includes, in addition to the classical notion of a fixed blood-brain barrier, an immunochemical concept of a circulating cerebrospinal fluid component. The Barrier-Antibody System may be inadequately developed in the schizophrenic.

Micromethods which have been developed for the quantitative analysis of individual specimens of cerebrospinal fluid with regard to the distribution of neuraminic acid between small and large molecular weight components, are described in the detailed report of this work(4).

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[2] Determined by a modification of the method of Klenk and Langerbeins, Z. physiol. Chem., **270**, 185, 1941. Crystalline neuraminic acid obtained from bovine brain ganglioside was employed as the standard(2, 4).

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POSSIBLE SYNERGISTIC ACTION OF CHLORPROMAZINE, RESERPINE AND FRENQUEL. A PRELIMINARY REPORT

J. WILLIAM SILVERBERG, M. D., AND ALEXANDER GRALNICK, M. D.[1]

With the addition of an increasing number of ataraxics to our armamentarium there are numerous clinical reports as to their effectiveness, special uses, dosages and toxic side-effects in the literature. A number of workers have reported their experiences with a combination of chlorpromazine and reserpine. We have recently begun using a combination of chlorpromazine, reserpine and frenquel. The results have been sufficiently interesting to warrant a preliminary report to bring them to the attention of the profession in hopes that other workers will try and report on the effect of the combination.

The work reported was done at High Point Hospital, a private mental hospital, where intensive psychotherapy is the cornerstone of the therapeutic program. It has been our experience, as has been reported by many others, that the ataraxics, particularly Thorazine and Serpasil, are of great help in bringing psychotic patients into meaningful psychotherapeutic relationship. Our experience with Frenquel, used in a similar way, has on the whole been discouraging. A combination of the three drugs has given surprising results. Most of these patients were highly recalcitrant to treatment and some had been treated with chlorpromazine, reserpine and Frenquel separately without significant effect.

CASE REPORTS

1. A 40-year-old, married schizophrenic woman had her first psychotic break 10 years ago and this her fourth hospitalization, occurred after a year's gradual downhill course on intensive (three times a week) ambulatory supportive psychotherapy. Shortly after admission she became confused and suspicious on her ward, and almost totally uncommunicative in psychotherapy. She was treated with chlorpromazine 100 mg. t.i.d. and reserpine 3 mg. t.i.d. for 3 weeks without apparent effect, and then Frenquel 40 mg. t.i.d. was added to these medications. Within a few days there was definitely more responsiveness towards personnel, and in psychotherapy she began to express her paranoid delusions. After 2 weeks she had begun to drop her delusions and these have not occurred. She has been able to work actively in psychotherapy.

2. An 18-year-old paranoid schizophrenic girl had received extensive ECT and insulin treatment before hospitalization at High Point. During her 8 months in hospital she had shown little response to psychotherapy, nor had ECT or Thorazine, used individually, affected her favorably. She was placed on chlorpromazine 100 mg. q.i.d., reserpine 2 mg. q.i.d., and Frenquel 40 mg. q.i.d. and within 4 days began to relate her paranoid delusions to her therapist. Two weeks later she dropped these ideas as "silly and sick" and has not resumed them. Although previously she had resisted taking medication, she now takes it willingly. After about 5 weeks on the 3 ataraxics, she began to show signs of slipping back to her former condition. The medications were stopped and her condition deteriorated. When 2 weeks later the medications were resumed she repeated the good response she had shown before.

Although the total number of patients treated thus far is still small, we feel that the fact that several patients, who have been in a chronic, highly static state for months, have shown significant improvement warrants this preliminary report. Although we have varied the total amount of medication given in various cases, i.e. chlorpromazine 200 mg., reserpine 2.0 mg., Frenquel 20 mg. daily, to chlorpromazine 400 mg., reserpine 4 mg. and Frenquel 160 mg. daily, the approximate proportions have been maintained constant.

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PERPHENAZINE—A DRUG MODIFYING CONSCIOUSNESS

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Since it is increasingly necessary that satisfactory evidence of the efficacy of drugs be available before those drugs are prescribed, a preliminary study of one of the newer agents has been carried out. This paper represents a brief report of this study, the re-

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sults of which will be published later in greater detail. The drug, perphenazine (Trilafon),[2] is an amino-derivative of chlorphenothiazine and may be assumed to act upon the alerting system of the brain stem. Animal experiment demonstrates that its potency is 5 to 10 times that of chlorpromazine.

A total of 75 chronic patients (36 men, 39 women) was used. All displayed anxiety, over-activity or were problems in nursing management. The author personally tested all the patients, who were divided into three equal groups and were retained in their usual setting. The double blind technique was employed. One group was given perphenazine 16 mg. t.i.d. by mouth, a second group of 25 received 25 mg. chlorpromazine t.i.d., and the last group had 25 mg. placebo t.i.d. All three tablets were exactly the same in shape, size, and colour, although not in effect, and were given over a 30 day period. Urinary, blood, and liver function tests were carried out before and after the trial. Nursing records of blood pressure, pulse, respiration, nausea, restlessness, anxiety, alertness, confusion, and appearance of insomnia were kept daily. A quantitative evaluation of behaviour (acute anxiety cluster of the Wittenborn Rating Scale) was used to rate patients before and after the trial. On these occasions each patient was also submitted to a battery of tests chosen as measures of attention, concentration, memory, learning, and basic perceptual and motor function. Tests used were the Tapping, Dotting, Digit Symbol, Digits Forwards and Backwards, and Porteus Maze.

[2] Trilafon is the trade name of Schering Corporation Ltd. for perphenazine.

Side-effects occurred in 7 of the patients receiving perphenazine and in no others. These took the form of Parkinsonian signs and increased secretions. Hypotension and altered liver functions and allergic side-effects were not found.

Patients receiving perphenazine showed greater improvement in the tests which measured integrative function below the cortical level, and yet above the multi-neuronal reflex level. Tapping and dotting showed the only statistically significant variation in performance. The source of variation was significant for perphenazine but not for chlorpromazine. Insofar as the other tests which we assume measure higher-order function did not show significant differences, it may be postulated that the site of action of the drug is at the subcortical level.

Maze results were not statistically significant, but showed a decrement of performance similar to that following psychosurgery. The Rating Scale for anxiety also showed a statistically significant variation for perphenazine but not chlorpromazine.

Rating testing and clinical assessment showed perphenazine to be similar in action to chlorpromazine, but with greater efficacy and more favourable therapeutic ratio. Untoward side-effects occur with its use, but may be avoidable with smaller doses, and are easily controlled.

The term "tranquilizer" is a misnomer and also has numerous unfortunate implications for lay persons. Since these drugs affect crude or basic consciousness and awareness, the term "sciotic" drug is suggested as an alternative.

RESEARCH NOTES

INVESTIGATION OF THE OEDIPUS PHANTASY BY HYPNOSIS

W. EARL BIDDLE, M. D.[1]

The widespread controversy over psychoanalysis is inevitable so long as validation depends upon subjective values, experiences and insights. Psychiatry and medical psychology have been enriched by the contributions of psychoanalysis, but those who insist upon adherence to Freudian orthodoxy tend to discredit the whole movement as unscientific. No entirely objective study is possible within the framework of psychoanalysis itself, but an interdisciplinary approach can be helpful. Hypnotic regression and revivification are valid investigative procedures which provide an objective method of study of human behavior, and are applicable here.

In our study 100 subjects were interviewed at the regressed age level of 3 years, and asked about what they could do by "just thinking" or "magic thinking." These subjects were psychotic (in partial remission), psychoneurotic and normal persons. At first we tried to regress the subjects to oral, anal and phallic stages. This proved impracticable as we could not hold the subjects to an age level. Also, we were suggesting phantasy material tailored according to psychoanalytic theory, and were thereby jeopardizing the validity of our results. We then decided to regress the subjects to a fixed age level and ask them about their own phantasies. This report is limited to the Oedipus phantasy.

All subjects phantasized making themselves small and entering into the body of the parents, or making the body of the parents extremely large so that the subject could go in. This phantasized entrance was made through the skin, the eyes, the ears or any of the body orifices. It is especially noteworthy that the subjects always entered the body of the parent *in toto*. This bodily union was analogous to a spiritual communion between the parent and child, and did not have the implication of a lustful attachment. Expressions made by the subjects, such as, "getting into mother's body" or "taking father to bed" would quite understandably be misunderstood by most therapists as incest wishes. However, in no instance did the subjects express erotic desires for a parent. When questioned about sexual relations the invariable answer was that children did not have such wishes, and that sexual activity was for adults only. Childlike innocence, however, does not imply ignorance. We found a surprisingly accurate knowledge of impregnation and birth at this age level, but some subjects did not retain this knowledge at a later age level.

When feeling frustrated or neglected the subjects responded with intense hostility to either or both parents. This hostility extended far beyond mere death wishes. The frustrating parent was completely annihilated. This appeared to be accomplished by negative hallucinations. The subjects also phantasized the parents making brutal attacks upon one another and battling to mutual extinction. The ability to create was as preposterous as the ability to annihilate. The subjects handled these abilities with a naive self assurance.

It is concluded that the Oedipus phantasy described by Freud is not found regularly, but children of both sexes strive for a shared spiritual union with both parents.

[1] Philadelphia State Hospital, Philadelphia 14, Pa.

CORRESPONDENCE

OSCAR WILDE

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY:

SIR: In a recent issue (April, 1957) of this JOURNAL, C.B.F. reviewed *The Three Trials of Oscar Wilde* edited by H. Montgomery Hyde. I have read this interesting book and find Dr. Farrar's review most informative and apt.

In spite of the unusual publicity and attention given to this famous trial and to the subject of homosexual perversion, it is curious—as C.B.F. points out—"no medical evidence was presented that might have thrown light upon Wilde's inversion and perhaps altered the issue of the trials." Many etiologies for Wilde's perversion have been suggested including (1) an abnormal inheritance from his father who was hyper-heterosexual, (2) an abnormal inheritance from his mother who showed acromegalic changes, (3) an abnormal social identification resulting from his mother's practice of dressing him in female clothes as a child, (4) abnormal psychosexual relations from a dynamic point of view to his mother. Not one of these etiologies withstands critical scrutiny. Regarding his father's hypersexuality, it would be a brave critic indeed who after reading Kinsey's report would categorize his father's behavior as beyond the normal range of male sexual activity. Furthermore, where is the evidence for a general transmission of homosexual behavior? Equally vague is the relationship between the acromegalic physique of his mother and Oscar Wilde's inversion. There is a paucity of data which shows that these two are related. The third etiology is effectively discounted by the editor of the book, H. Montgomery Hyde. The fourth proposition is equally tenuous. It is not difficult to highlight focal points in any personal history which can support any given hypothesis provided that (1) the complete history is known, that is, no prediction is required, and (2) that personality history which favours the hypothesis is considered a fact and personality findings which counter the hypothesis are considered examples of resistance to the underlying true but unexpected fact.

I would like to present yet another theory regarding the etiology of Wilde's perversion and of his trials. It is simply this—that Wilde's inversion and unusual behavior was triggered by a personality change due to an insidious cerebral syphylitic process. As a result of this pathological change, Wilde's brilliant but unfeeling wit for social situations, which, in the climate of his time operated to his success in his plays, led to his downfall as a result of the trial and conviction.

Wilde was born in 1854. He attended Oxford University between 1874 and 1878 where he contacted syphilis from heterosexual relationships. This was treated with mercury but not successfully. He married in 1884.

Editor Hyde states that "We know too that he was deeply in love with his wife at the time of their marriage, and that they experienced normal sexual intercourse. Indeed, two sons were born of the union before the rift between them took place. At the beginning the husband seems to have been an enthusiastic lover. To a friend whom he chanced to meet during the honeymoon he spontaneously expatiated upon the physical joys of wedlock. And on the occasion of his first separation from his wife, some months later, he wrote to her from Edinburgh: 'Here am I; and you at the Antipodes: O execrable fates that keep our lips from kissing, though our souls are one. . . . The messages of the gods to each other travel not by pen and ink, and indeed your bodily presence here would not make you more real: for I feel your fingers in my hair and your cheek brushing mine. The air is full of the music of your voice, my soul and body seem no longer mine, but mingled in some exquisite ecstasy with yours.'

"Before proposing to his wife, Wilde had consulted a doctor in London, who had assured him that he was completely cured of his youthful malady. On the strength of this assurance he married. About 2 years later he discovered to his dismay that all traces of syphilis had not been eradicated from his system, and it was this unpleasant discovery which obliged him to discontinue physical relations with his wife. In the result, *inter alia,* he turned towards homosexuality."

His first trial occurred in 1895, 17 to 21 years after harboring the treponema pallida. This certainly was long enough for the establishment of a syphilitic process in the brain. He died in 1900, and the doctor who attended him in his last days stated that his patient displayed all the symptoms of a chronic syphilitic.

Wilde's behavior before, during and after the trial was brilliant in his use of repartee but woefully lacking in judgment and he effectively demolished his chance for freedom by (1) not being very honest with his solicitor, (2) by falsifying his age (a matter of public record), (3) by withholding information that might have saved him and then feeling martyred because he had done so, and (4) by continuing his first suit against the Marquess of Queensberry against the advice of his good friends. On page 35, Editor Hyde refers to his "temptation to show off." A dinner is described with Shaw, Douglas and Harison when he was advised by Shaw and Harison to withdraw his suit and quit the country but he refused. On page 43, "Wilde was urged by his friends on all sides to leave the country," but a perverse and foolish sense of obstinacy and bravado induced him to stay at all costs and see the thing through. Again "this line of thinking was reckless in the extreme."

After the first trial, he was again advised to leave England but he found himself in a pathetic state of indecision lamenting that the train had gone or that it was too late, and then feeling that he had at that time a good chance of being acquitted.

Admittedly, this hypothesis suffers from the same difficulty as the earlier hypotheses, that is the lack of adequate medical and psychological data regarding Oscar Wilde. However, in my opinion, the fact of the syphilitic process and the fact of poor judgment late in his life do suggest the hypothesis that if Oscar Wilde had not had cerebral syphilis—(1) he might not have become homosexual, (2) if he had become homosexual, he might have been more circumspect as regards his behavior, and (3), he would have shown much more judgment at the time of his trial and perhaps have avoided the consequences.

A. Hoffer, M. D.,
Director, Psychiatric Research,
University Hospital,
Saskatoon, Saskatchewan.

PERSONALITY

Everyone now believes that there is in a man an animating, ruling, characteristic essence or spirit, which is himself. The spirit, dull or brght, petty or grand, pure or foul, looks out of the eyes, sounds in the voice, and appears in the manners of each individual. It is what we call personality.

—Charles W. Eliot

PRESIDENT'S PAGE

Through the generosity of the Editorial Board, the President has been given the privilege of a page of the JOURNAL to communicate to his associates some of his ideas, ruminations and activities. One of the first jobs of an incoming president is the appointment of committee members. There are approximately fifty active committees, each made up of six or more members; therefore there are somewhat more than three hundred committee members, of whom about one-third finish their tour of duty after three years. The new president thereupon has the obligation of filling the vacancies. This is a major undertaking, as it is desirable that each committee member be interested, devoted and energetic in pursuing the activities of the committee for the welfare of the Association. Geographical distribution is desirable. It is pleasant to report to the Association membership that there is only one declination to accept the committee appointment. The letters of acceptance evidenced great enthusiasm for the opportunity to serve.

When I became a member of the organization (then called the American Psychopathological Association), the membership numbered approximately 800. At an annual meeting, there was, and is expected attendance of 25 to 30 per cent of the membership. Hence 200 to 300 members assembled. It was easy, therefore, to become acquainted with the majority of one's associates. The number of papers was relatively few, as there were no multiple sections. The annual meeting was an event of social significance where one could become acquainted with the activities and ideas of a large portion of the membership. Good fellowship, a forum for the reading of papers and a discussion of the affairs of the Association took place. The meeting was reported in great detail in the JOURNAL, including reports of committees and actions taken by the Council at its interval assembly. Today the number of members is approaching 10,000. Indeed, in this past year essentially as many new members were elected as the total membership rolls of this earlier period.

Throughout the history of the Association, the membership has taken very seriously the matter of the mental health of the nation, and through its officers and committees has attempted to effect leadership. In recent years, with the rapid growth of membership, with the increased activities in the field of mental health throughout the countries represented by the APA, the responsibilities and the activities have multiplied. The establishment of an organization headed by a medical director has come into being. The new home is shortly to be occupied. This has brought to the Association if not a new orientation at least the responsibility of deciding where it wishes to go, how much activity it wishes to foster, and how expanding activities can be financed. We are faced with the questions inherent in all large organizations of centralization or decentralization. Personally I am devoted to the theory of decentralization. To my way of thinking, it is fortunate that the Association has apparently taken the steps for decentralization side by side with strengthening the central organization. The creation of the Assembly and District Branches, the development of Divisional and Research meetings, suggest a direction of activities that I believe is very hopeful. It is my hope that the activities of the Assembly of the District Branches will develop more and more and become the effective portions of our organization.

HARRY C. SOLOMON, M. D.

COMMENT

THE UPSURGE OF THE SAVAGE

Not so long ago *The Medical Journal of Australia* published an editorial about social conditions representing different cultural levels as between separate racial stocks, and also about primitive traits that come through to the surface in so-called civilized communities.

This editorial said things that are worth retelling and Dr. Mervyn Archdall, Editor of *The Medical Journal of Australia,* has graciously authorized the quotations that follow.

Residents in the more primitive parts of Australia where aborigines are to be found have frequently described their experiences when endeavoring to train an intelligent native girl and bring her up in the ways of white civilization. Often the girl in "preteen age" excels her white school-fellows in quick perception and retentive memory; her sponsors are delighted with her progress and predict for her a future of usefulness. But when she has entered the "teenage" the girl becomes restless, especially if any of her people are camping nearby, and then one day she disappears without a word of farewell. When next seen, if she is seen at all, she is a scarred and verminous savage with pendent breasts nursing a baby. The habits of her white sponsors have been shed as a snake sheds its skin; she is happier in her unkempt condition, and any return to the ways of her former life as a foster child is not only impossible but is not desired. We speak with pity of such a reversion and are apt to regard it as a characteristic of the aboriginal and as something from which we are happily exempt, but let us not be too certain and complacent. Mankind has for so many tens of thousands of years indulged in wild magical rites and orgies of sexual license, with stamping of feet to the rhythm of tom-toms, frenzied dancing of warriors and witch-doctors, with gashing of skin and enforcement of hideous mutilations that even in the best of us there are interwoven in our psychic background the predispositions and sinister potentialities of the savage. Wordsworth wrote that heaven lies around us in our infancy, an aphorism which a mother of a healthy family of young children is hardly likely to accept as true; but Wordsworth proceeds to deplore the fact that shades of the prison house begin to close about the growing boy. Puberty, especially in the boy, not only witnesses the onset of sexual desire and gratification, but a host of turbulent and often antisocial impulses. It is just at this age when he needs vigilant watching and careful guidance that he is too often pushed out into the world to earn a wage and pick up any contamination offered in his environment. We are horrified at the extent and nature of vandalism; upholstery of railway cars is slashed, young trees, carefully chosen and planted, are uprooted or cut down, sacred memorials are desecrated, devices designed for young people's own protection are wrecked and too often acts of sabotage are committed which in a high degree endanger human life, as when obstructions are placed on railway lines. We are often told that education is an asset which is permanent, it cannot be lost or squandered; but, alas, this is not quite true. . . . Like the civilized behaviour of the aboriginal girl brought up in a white home, it is overwhelmed by the upsurge of the savage innate in the growing boy and girl of all races, and liable to take command of character unless deftly held in check. We should keep this consideration always in mind. We read of rock and roll dances in which young folk are carried away by an hysterical frenzy and behave as if demented; they are merely giving way to elemental forces deeply implanted in human nature. Adults simply cannot understand the screaming adulation of crooners and similar entertainers given by silly girls, but these are only reverting to ancestral usages. . . .

Our daily life displays evidences of magic all around us. The mascot, whether a living animal or an inanimate object, is accepted as something giving a human touch to the ac-

tions of the possessor, but is in fact a piece of pure mumbo-jumbo. Revealing of the future by divination is observable in lucky numbers and in tips for horse-racing given by haphazard occurrences and coincidences. Around each lottery there has grown a huge system of unwarranted optimistic beliefs and hopes which lure the prospective buyer of tickets; the hard facts of mathematical theory of probability do not fit in with aspirations based on magical premises.

The great service of Hippocrates to medical science was the divorce of medicine from the supernatural, but, alas, that did not persist as a guiding principle. Soon magic reentered medical practice and remained until nineteenth century science accepted the challenge and restored the Hippocratic tradition. That is to say, in the ranks of the medical profession magic no longer exerts any influence, but unfortunately this is not true of the lay public which, as the old Latin adage tells us, "likes to be deceived." It is a sad fact that the anxious patient would sometimes prefer a bit of hocus-pocus in the attention of his family doctor. Often he will renounce the trained medical man and seek comfort in the advice and irrational ritual of the herbalist, faith-healer and quack. To the medical practitioner who is doing his best for his patient this attitude can be very irritating, but it should be remembered that it is merely another instance of the savage within us bursting through the logical confines in which scientific progress has enclosed us. Sooner or later science will win and magic be forced into dark corners; it may take longer than we expect as the powers of darkness are still mighty in human nature. The great practical issue is that not only must we offer good education to boys and girls, but that we should be conscious of this urge to let the elemental savage within us take over the direction of our lives. Precept and example, opportunities for work and healthy recreation are to be consistently offered, whilst in the case of the boy and youth it would be wise if we did not allow reaction against the severe corporal punishments in past times to lead us to the opposite extreme.

HUMAN BETTERMENT

No great improvements in the lot of mankind are possible until a great change takes place in the fundamental constitution of their modes of thought.

—JOHN STUART MILL

. . . and until their biological evolution is much further advanced, he might have specified.

NATURE AND MAN

Nature, generous and heartless, extravagane and miserly as she is, is our Mother and our only teacher, and she is also the deceiver of men. Above her we cannot rise, below her we cannot fall. In her we find the sea and soil of all that is good, of all that is evil. Nature originates, nourishes, preserves, and destroys.

Every brain is a field where nature sows the seeds of thought, and the crop depends upon the soil.

—ROBERT G. INGERSOLL (1899)

OFFICIAL REPORTS

REPORT OF THE COORDINATING COMMITTEE ON THE COMMUNITY ASPECTS OF SOCIETY

COMMITTEE ON ACADEMIC EDUCATION—*Chairman,* Bryant M. Wedge: The major project of this committee is to explore resources within and outside the government for the scientific study of problems of youth. As the result of this study there is the possibility of the publication of a survey of these resources for the use of psychiatrists and other investigators. Secondly, the committee hopes to make recommendations for the establishment of an office of scientific, youth information for the collection and codification of source data, the encouragement of research and the publication of accurate scientific data concerning problems in this field. They are working with a representative of the National Institute of Mental Health.

The committee sponsored a roundtable on the International Problems of College Mental Health and a section on psychiatry and academic education at the annual meeting.

COMMITTEE ON CIVIL DEFENSE—*Chairman,* Calvin Drayer: This is a new standing committee added to this coordinating committee group. They are currently involved in a joint project with the federal civil defense administration for the evaluation of mental hospitals in civil defense. This is entirely in the investigative phase and will be carried on during the coming year.

COMMITTEE ON INDUSTRIAL PSYCHIATRY—*Chairman,* Ralph T. Collins: This committee developed an exhibit on industrial mental health which has been shown at various business and professional meetings, most recently at the National Industrial Health Conference held in St. Louis. It is the first time that this topic has been presented at the Industrial Health Conference, and it created a great deal of interest. The exhibit currently is on display at the Kingsport (Tenn.) Mental Health Association Clinic during mental health week.

A brochure on mental health hints for personnel people is being prepared and will be published within the next year.

There is a great increase of interest in the field of industrial psychiatry both by personnel and management groups as well as psychiatrists. The members of this committee are constantly in demand for talks and meetings with representatives of business throughout the country.

COMMITTEE ON INTERNATIONAL RELATIONS—*Chairman,* Iago Galdston: This committee is concerned with many aspects of our international relations in the field of psychiatry, with our foreign members, foreign guests, and momentarily is very much interested in the possibility of the regional meeting in Florida which would include psychiatrists from Central and South America.

The committee sponsored an afternoon session at the annual meeting on the "Perspectives on International Psychiatry" with five distinguished speakers from foreign countries. Also they arranged a luncheon for our foreign guests and conducted a dinner roundtable on the "Relation of Social Ethics, Religious Principles and Psychiatry" using four distinguished speakers from foreign countries.

COMMITTEE ON COOPERATION WITH LEISURE-TIME AGENCIES—*Chairman,* Alex R. Martin: This committee is thoughtfully considering the preparation of a monograph series dealing with the mental health concerns of leisure. They have obtained a film "Osborn on Leisure," which can be used by the members of the Association as well as leisure time agencies for educational purposes to civic groups. The committee is also considering other methods of the use of mass communication media.

Their major interest is to enlist much further than hitherto the membership of The American Psychiatric Association in giving of their skills and knowledge to

leisure-time agencies, both at the national and particularly at the local level. It is hoped this might be greatly increased through the district and affiliate branches. This particular committee has carried on extensive consultations and conferences with many types of leisure-time agencies, in order that it may be in a more effective position to provide leadership and assistance to psychiatrists who will, at the local level, work with such agencies.

COMMITTEE ON NATIONAL DEFENSE—*Chairman,* Joseph S. Skobba: The Committee on National Defense is continuing its analysis of the survey of medical officer opinion concerning the military program as a career. It is also concerning itself with the steps taken under the MEND program to teach military psychiatry in our medical schools.

COMMITTEE ON PREVENTIVE PSYCHIATRY—*Chairman,* Lloyd J. Thompson: This committee has continued to focus its major working effort on preventive mental hygiene at various stages of life, preparing a comprehensive bibliography of material available from many sources dealing with the periods of infancy, pre-natal life, natal life, neo-natal life, infancy and pre-school years. It is the hope that such material might prove helpful to workers in all fields of health as well as to educators, clergy, lawyers and others. The committee conducted a roundtable at the annual meeting on the parent-child relationships during the pre-school years.

COMMITTEE ON PUBLIC INFORMATION—*Chairman,* Dr. Robert Morse: After 5 years of work the committee has completed and published a psychiatric glossary, 20,000 of which have already been sold. The booklet on "Psychiatry, the Press and the Public" has sold over 6,000 copies. The committee assisted in drafting two widely publicized releases this year, one on tranquilizing drugs and the other on drug addiction. The committee has given much time and thought with an organization known as "official films" which represents Mr. Paddy Chayefsky, to the development of a pilot TV program to be offered to commercial sponsors. An increasing number of manuscripts from science writers have been received by the committee with a request for editorial review during the past year. Commendations in increasing number have been received by the Association for the method of handling our press relationships at the annual meeting. It is expected that upwards of 100 reporters will attend this year's meeting.

COMMITTEE ON VETERANS—*Chairman,* David J. Flicker: This committee's assignment is to improve the lot of the mentally disabled veteran as well as to improve the status of our members who are engaged in caring for these patients. They have focused on the improvement of the salary scale for physicians in the Veterans Administration. They have undertaken to change the pattern of the budgetary allotments of the VA so that consideration will be given to those hospitals that have an active turnover picture instead of just a large daily patient load. The committee sponsored a roundtable at the annual meeting on the subject of "The VA and Medical Education—A deteriorating relationship?" The committee continues to keep contact with the major veterans organizations as well as an awareness of the pending legislation so that American psychiatry may have a hearing where this is indicated.

As the retiring chairman of this coordinating committee, I again want to commend to the membership of this Association the earnestness, thoughtfulness and hard work that our committees are giving to their assigned task in behalf of American psychiatry.

WILLIAM C. MENNINGER, M. D.,
Chairman.

REPORT OF COORDINATING COMMITTEE ON PROFESSIONAL STANDARDS

The Committee on Relations with Psychology: This Committee continues to work actively with the corresponding committee of the American Psychological Association. It is watching closely all legislation in this field. It has run into a problem of interpretation of certification as against licensure and is seeking clarification of this point through

legal opinion so that all District Branches and constituent groups of the American Psychiatric Association may have a sound legal basis for a stand in one direction or the other. As this opinion is obtained, it will be circulated to the membership.

The Committee on Nomenclature and Statistics: This Committee has prepared a practical coding system for the gathering of data and use of statistics in psychiatric facilities and is currently trying it out. It is expected that these studies will lead eventually to the publication of a manual. The Committee has found it necessary to define certain common terms and may plan to survey with an interested research group what laymen usually mean by some of these terms. For example, the Committee has prepared a tentative definition of psychotherapy.

The Committee on Standards and Policies of Hospitals and Clinics: This Committee has held several meetings in New York and Chicago as well as the regular meeting in Washington. The Committee has participated in the development of a conference on a national level on volunteers in mental hospitals. This conference will be held in Chicago during June, 1958. Preparatory commissions have been formed and will hold their initial meetings in the immediate future. Certain general changes have been suggested regarding the standards and policies of public hospitals in cooperation with the Central Inspection Board and will later be submitted to Council. Also a revision of standards for chaplains in public psychiatric hospitals has been submitted to the *ad hoc* Committee on Religion and Psychiatry. Finally, an introductory statement on standards for public psychiatric out-patient clinics will be submitted to Council and as approved or amended, will serve as a basis for the writing of standards and policies for such clinics.

The Committee on Psychiatric Social Work: This Committee has dealt with a tentative draft of Standards for Clinical Social Workers distributed by the United States Civil Service Commission. This was an unsatisfactory document. Final action on it was successfully deferred through efforts of your Social Work Committee. The second portion of this draft was studied and approved. In addition, the Committee is working quite closely with groups of psychiatric social workers and continues to study collaboratively the relationships between psychiatry and psychiatric social work. A Round Table on the "integrated role of the social worker in medical teaching" was presented at the 1957 annual meeting.

The Committee on Legal Aspects of Psychiatry: This Committee has obtained, without cost to the Association, the services of a well-qualified and interested attorney. The Committee is working on the preparation of a model uniform law dealing with the question of privilege. A proposed law has been prepared and this is now to be coordinated with the Committee on Legal Aspects of Psychiatry of the American Bar Association. After agreement is reached, the draft will be presented to Council for approval. In addition, the Committee is working on the problems of including abduction, false arrest, false imprisonment, etc. in malpractice insurance laws, and hopes to resolve this problem. Your Committee was represented in Vermont in a special panel discussion which resulted in the introduction in the Vermont Legislature of a bill to abolish the M'Naghton rule.

The Committee on Private Practice: This Committee conducted a Round Table at the annual meeting on health insurance plans, which it is hoped will result in a report suitable for publication in the Journal. The Committee has been invited to sit with Blue Cross and with the Health Insurance Institute to try to work out some of the problems of definition and description in relation to hospitalization of the mentally ill. The Committee is working also on the problem of fees charged by psychiatrists to doctors and their dependents. The American Psychoanalytic Association had made a survey of its members. The Committee on Private Practice is carrying out a similar survey of the members of the American Psychiatric Association. This will be done to start with by use of a questionnaire.

The Committee on Psychiatric Nursing: This Committee has continued to work on the numerous problems in this field in collaboration with the several nursing organizations. The National League for Nursing

has prepared a proposal for psychiatric aide teacher-training and the Council of the A.P.A. has authorized joint sponsorship of this program with no expense to the Association. Your Committee is still working with the National League on the details of this program and in attempting to raise funds to carry it out.

All of the Committees in this group have continued to work hard and long on the many problems referred to them by Council, by the Executive Committee, or inherent in their original mission. As Chairman of the Coordinating Committee, I should like to express my gratitude to the chairmen and members of the several Committees and to Council and the Executive Committee for their cooperation, as well as to the members of the staff of the several offices of the APA.

WILFRED BLOOMBERG, M. D.,
Chairman.

"WHILE HUMAN NATURE REMAINS THE SAME"

Many and grievous were the things which befell cities in those revolutionary struggles [between Greek city-states leading to the Peloponnesian War]—things which occur now and will always recurr while human nature remains the same, albeit with more or less violence and in different forms according to the particular turn of events. For in peace and prosperity both cities and private men are better disposed, since they are not under the constraint of necessity. But war is a violent schoolmaster: it robs men of their day-to-day margin of sufficiency and debases the character of most to the level of circumstances.

—THUCYDIDES

UTOPIA

In the Twentieth Century war will be dead, the scaffold will be dead, hatred will be dead, frontier boundaries will be dead, dogmas will be dead; man will live. He will possess something higher than all these—a great country, the whole earth, and a great hope, the whole heaven.

—VICTOR HUGO

UTOPIA

Science can, if it chooses, enable our grandchildren to live the good life, by giving them knowledge, self-control, and characters productive of harmony rather than strife. At present it is teaching our children to kill each other, because many men of science are willing to sacrifice the future of mankind to their own momentary prosperity. But this phase will pass when men have acquired the same domination over their own passions that they already have over physical forces of the external world. Then at last we shall have won our freedom.

—BERTRAND RUSSELL
(What I Believe, 1925)

NEWS AND NOTES

New York City Community Mental Health Board.—Dr. Maurice H. Greenhill was inducted on May 27, 1957 by Mayor Robert F. Wagner, as executive director of the N. Y. City Community Mental Health Board. He succeeds Dr. Paul V. Lemkau, who returned to his post as professor of public health at Johns Hopkins University.

A consultant to the surgeon-general of the Army since 1948, Dr. Greenhill is also chief consultant in psychosomatic medicine at Walter Reed General Hospital, a consultant to the VA, and special consultant to the surgeon-general of the U.S. Public Health Service in community service and research. He is the author of the revised commitment laws of North Carolina.

The N. Y. City Community Mental Health Board is a city agency which plans, finances, and coordinates mental health services of public and voluntary agencies. Its budget for the coming year will be over 19 million dollars.

Members of the Board are: Joseph W. McGovern, acting chairman; Grace Abbate, M. D., Leona Baumgartner, M. D., Sol W. Ginsburg, M. D., Frank E. Karelsen, Henry L. McCarthy, Mrs. Alice W. Fordyce, and George Kent Weldon.

Psychiatric Rehabilitation Institute, Duke University.—A 5-day Regional Institute on Psychiatric Rehabilitation was held June 10, 1957, at Duke University, Durham, N. C. This pilot institute was conducted by the Duke University School of Medcine under the auspices of the Department of Health, Education and Welfare, U.S. Public Health Service. Twenty-seven counselors in the Vocational Rehabilitation Departments of 8 states and Puerto Rico were in attendance. Instructors included the psychiatric faculty of Duke University, industrial physicians and personnel, social service and VA officers.

This Institute on Psychiatric Rehabilitation was the first of its kind in the Southeast.

Medical Association of South Africa.—The 20th annual scientific meeting and the 41st Medical Congress of the Medical Association of South Africa will be held in Durban, Natal, Sept. 16-21, 1957. The headquarters of Congress will be at Red Cross House, Old Fort Road, Durban. There will be 4 plenary sessions as follows:

1. Cerebral Vascular Disease and the Problem of Ageing. Speakers: Sir Russell Brain, President of the Royal College of Physicians of London; Dr. M. M. Suzman, Johannesburg; Dr. F. H. Kooy, Cape Town; Keith L. Allen, Johannesburg; and Prof. E. L. Bortz, Philadelphia.

2. The Parasitic Diseases of Man in Africa. Speakers: Dr. Michael Gelfand, Salisbury, S. Rhodesia; Charles Marks, Salisbury, S. Rhodesia; and Dr. R. Elsdon-Dew, Durban.

3. The Surgery of Repair. Speakers: Sir Harry Platt, President of the Royal College of Surgeons, England; William Gissane, Birmingham; and Prof. T. Pomfret Kilner, Oxford.

4. Recent Advances in Child Care. Speakers: Prof. Alan Moncrieff, London; Dr. D. M. T. Gairdner, Cambridge; and Dr. H. L. Wallace, Durban.

In addition to these plenary sessions there will be numerous scientific sectional meetings in all the recognized specialties. At one of these meetings Prof. V. Kinross-Wright of the department of psychiatry, Baylor University, Houston, Tex., will speak on "New Horizons in Chemotherapy."

Institute of Psychiatric Treatment, Philadelphia, Pa.—The 5th annual Institute of Psychiatric Treatment will be held in Philadelphia, Pa., October 17, 18, and 19, 1957. For further information write: Dr. Leo Alexander, Chairman, 433 Marlborough St., Boston 15, Mass.

Scholarships for Teachers of Blind Children.—For the first time in its history, the South will establish its own year-

round program for training teachers of blind children. Five $1500 scholarships are available for qualified teachers who wish to take this special training, sponsored by the American Foundation for the Blind, the Southern Regional Education Board, and George Peabody College for Teachers, Nashville, Tenn. The American Foundation will support the regional progam financially for the first 3 years, and is contributing over $50,000 for scholarships and a professorship.

Applicants for these scholarships should write to Dr. Lloyd M. Dunn, coordinator of special education, George Peabody College for Teachers, Nashville 5, Tenn., where the training will be given.

Administrative Appointments, N. Y. State Department of Mental Hygiene.—Four major administrative appointments in the N. Y. State service became effective July 1, 1957, as announced by Commissioner Paul H. Hoch.

Dr. Arthur G. Rodgers, director of Binghamton State Hospital, became director of Syracuse State School; Dr. Ulysses Schutzer, assistant director of Central Islip State Hospital, succeeded him as director of Binghampton. Dr. Charles Greenberg, director of Craig Colony, was appointed senior director of Rome State School and Dr. William C. Johnston, former assistant director of Matteawan State Hospital, succeeded him as director of Craig Colony.

Adolf Meyer Memorial Awards.—Dr. D. Ewen Cameron and Dr. A. E. Moll, Allan Memorial Institute, were selected as recipients of the 1957 Adolf Meyer Memorial Awards bestowed for meritorious contributions on behalf of improved care and treatment of the mentally ill, inside and outside of institutions. The award is made by the Association for Improvement of Mental Health.

North Shore Hospital Lecture Series.—Dr. Samuel Liebman, medical director of the North Shore Hospital, announces that the topic of the Eighth Annual Lecture Series for 1957-58 will be, "Emotional Problems of Childhood." The lectures will be given on the first Wednesday of every month from October 1957 through June 1958 (2nd Wednesday in January) at the hospital, 225 Sheridan Road, Winnetka, Ill., at 8:00 P. M.

The American Academy of General Practice has approved attendance at this program as meeting their standards for graduate training.

The entire lecture series will be published in 1958 by J. B. Lippincott Co., Philadelphia. Each of the authors and the Board of Directors of the North Shore Hospital have assigned all royalties that will accrue from the sale of this book to The American Psychiatric Association.

Honors for Dr. Kanner.—It is a pleasure to note that the Royal Medico-Psychological Association of Great Britain has invited Dr. Leo Kanner, chief of the Children's Psychiatric Service, Johns Hopkins Hospital, to deliver the annual Maudsley Lecture in London, England, November, 1958. Dr. Kanner will be the third psychiatrist from the West and the first child psychiatrist to be so honored. The others were Dr. Charles K. Clarke of the University of Toronto, and Dr. Adolf Meyer of Johns Hopkins University.

Further, Dr. Kanner's services to the Johns Hopkins School of Medicine have been recognized by his appointment as professor of child psychiatry. This represents the first professorship in child psychiatry to be established at the Johns Hopkins University.

Illinois Psychiatric Society.—In May 1957, the following members of the Illinois Psychiatric Society were elected to office for the year 1957-58: president, Dr. Kalman Gyarfas, Chicago, Ill.; vice-president, Dr. Nathaniel S. Apter, Chicago, Ill.; secretary treasurer, Dr. Alberto de la Torre, Chicago, Ill.; councilors: Drs. Hugh Carmichael and V. C. Urse, Chicago, Ill.; delegate to assembly of district branches of The American Psychiatric Association: Dr. John R. Adams, Chicago, Ill.; alternate delegate: Dr. Isadore Spinks, Chicago, Ill.

Delaware Psychiatric Society.—At the recent meeting of the Society, the following officers were elected for the year

1957-58: president, Dr. George DeCherney; vice-president, Dr. James Flaherty; secretary-treasurer, Dr. Walter Davis; councillors: Drs. Charles Katz and Sanford Rogg.

American Society for Public Administration.—At the annual dinner at Albany, N. Y., of the Capital District Chapter of the Society, May 1957, Mrs. Marie Yegella, a teacher at Wassaic State School, won recognition for her pioneering work with severely retarded children when she received the Governor Charles E. Hughes Award in Public Administration. The award is given for significant achievements in public administration which are of outstanding value and usually represent efforts "beyond the call of duty." Mrs. Yegella, working with children with serious physical disabilities, as well as severe mental defects and I.Q.'s under 50, has developed techniques and goals which are now accepted and taught generally.

The Governor Alfred E. Smith award for achievement in a staff position was made at the same time to Dr. Robert F. Korns, assistant commissioner for program development of the Health Department.

Psychiatry in New Zealand.—A vigorous program in psychiatry has been instituted at the University of Otago Medical School under the supervision of Dr. Wallace Ironside, senior lecturer. A course of optional lectures in medical psychology is given to 3rd year students, together with clinical tutorials in connection with the department of psychiatry at Dunedin Hospital, of which Dr. Ironside is the senior psychiatrist. The department maintains a senior and junior psychiatrist, a psychologist, psychiatric social worker and a child psychologist.

Emphasis is also placed on child guidance, with conferences held once a fortnight to which are invited those who have to deal with child patients in other fields.

New Jersey Neuro-Psychiatric Institute.—The fifth annual psychiatric institute will be held at the New Jersey Neuro-Psychiatric Institute, Princeton, N. J., on Sept. 18, 1957. The general topic for discussion is: Disciplines in Modern Psychiatric Treatment.

Among the participants are: William Malamud, Harry Solomon, Franz Alexander, Robert A. Matthews, Richard Sweigert and Benjamin Simon.

Southern Mental Health Council.—The Southern Regional Council on Mental Health Training and Research met in Louisville, Ky., June 28-29 to consider several proposed projects and elect officers for the coming year.

The Council, which consists of one member from each of the 16 participating states appointed by its governor plus 8 members appointed by the SREB, was established by the Southern Governors Conference of 1954 after a year-long regional study by the Southern Regional Board of the problems states face in dealing with mental illness and health.

Projects considered at its Louisville meeting included: a proposed experiment in the education of the mentally retarded; exchanges of personnel among mental hospitals for in-service education; and a study on the economic value to states of providing adequate mental care.

A.C.L.S. Aid to the Humanities.—The American Council of Learned Societies has announced their three-fold program to further humanistic studies. Beginning with the academic year 1958-59, $300,000 will be made available in three classifications: 1. Fellowship grants to provide opportunities for younger scholars to complete research projects in the humanities or to extend their competences by extensive study. 2. Grants-in-aid, for significant humanistic research in progress. Candidates for these 2 classifications must hold a doctorate or its equivalent in the field of the humanities and be normally under 45 years of age. 3. Special awards for the completion of distinguished works in the humanities by mature scholars nominated by academic or other professional societies.

The humanistic area of learning is interpreted in general as including the following: philosophy, including the philosophy of science and the philosophy of law; philology, language, literature, and linguistics; archae-

ology, art history and musicology (but not applied art or music); history, including the history of science and the history of religions; and cultural anthropology, including folklore. Programs in the social sciences and the natural sciences which have a humanistic emphasis will also be considered.

Completed applications must be received before Sept. 15, 1957, January 15, and March 15, 1958 for Grant-in-aids and before October 15, 1957 for Fellowship Grants. Address: ACLS Grants Program (or ACLS Fellowship Program), 2101 R St., N. W., Washington 8, D. C.

EUPHEMISM

It is reported that Dr. Thurnam in 1895 proposed that in England the County Pauper Lunatic Asylum should be called The Orthophrenic Institution.

MRS. PACKARD AND HER "REFORM"

The entire annals of the insane in the State of Illinois furnish no greater evidence of cruelty to the insane and their friends than this so-called 'reform,' so zealously promoted by Mrs. Packard. As a matter of fact, more persons were found insane by jury trials . . . than were ever wrongfully committed under the earlier system. The effect on the patient was frequently detrimental, arousing in his mind the idea that the court proceedings were for the purpose of substantiating some charge against him, and when found insane he believed himself innocently condemned.

—Richard Dewey,
(*Am. J. Insan.*, 69: 571, 1913)

NURSE EVERYWOMAN

Every woman, or at least almost every woman, in England has, at one time or another of her life, charge of the personal health of somebody, whether child or invalid,—in other words, every woman is a nurse. . . .

If, then, every woman must at some time or other of her life, become a nurse, *i.e.*, have charge of somebody's health, how immense and how valuable would be the produce of her united experience if every woman would think how to nurse.

—Florence Nightingale,
Notes on Nursing, 1859

BOOK REVIEWS

PSYCHISCHE HYGIENE. Edited by *Erwin Stransky, M. D.*, and *Ernst Brezina, M. D.* (Wien-Bonn: Wilhelm Maudrich, 1955.)

Nine authors have contributed to this book. Nevertheless, an astonishing degree of homogeneity has been achieved, since the contributions of the various authors are clearly influenced by the thinking and previous publications of Stransky, whose main concepts and psychiatric attitudes permeate the entire book. Already in 1931, Stransky, in collaboration with other authors, has published the first German text on mental hygiene. The aim of mental hygiene, according to Stransky, is on one side the preservation of the healthy part of the population in their state of mental health and, on the other, protection of the endangered and susceptible part of the population, (psychopathic personalities recurrent psychoses, behavior problems in children and adolescents, etc.) from such harmful influences as may aggravate their precarious state. Stransky is quite anxious to stress this twofold nature of his mental hygiene concept, since particularly in America, according to his opinion, the second aspect has been overly stressed, almost to the exclusion of the first aspect. Both aspects, according to Stransky, should be taken care of primarily by physicians who are the only ones who can draw the line between necessary and harmful popularization of medical knowledge.

The various authors give due credit to Clifford Beers and Adolf Meyer, but chiefly build on European and particularly Viennese foundations. In his chapter on the history of mental hygiene, Holzer goes back to the ancient Greek philosophers as well as Hippocrates, Marcus Aurelius, Paracelsus, and then calls atention to the interesting and important work of the Austrian physician, scholar and poet, Freiherr von Feuchtersleben. In 1838, Feuchtersleben published a book *Zur Diaetetik der Seele*, in which he stresses the principle of prophylaxis in a similar way as it is now being stressed by Stransky. Nevertheless, the impact of the American mental hygiene movement was needed to make mental hygiene, even in the fatherland of Feuchtersleben, into more than a theoretical concept and an attitude of mind on the side of the physician. In his emphasis on prophylaxis Stransky stresses the importance of reasonable diffusion of information, counselling centers, and social work agencies. Since he attributes a great deal of importance to eugenics he is interested in premarital counselling. Even in mild cases of cyclic endogenous depressions he warns against marriage, stressing the hereditary and eugenic factor to a greater extent than is customarily done. The same rather rigid view is extended to patients with convulsive disorders, and one is surprised that in connection with epilepsy, heredity and marriage, the importance of the electroencephalogram is not even mentioned. In major neuroses too, due to emphasis on the constitutional factor, eugenic prophylaxis is being stressed, but it is strongly emphasized that human rights and human dignity should not be encroached upon. Stransky is therefore opposed to legislative measures in this connection. The constitutional, hereditary point of view permeates the entire book. In therapy Stransky stresses his "subordination authority relation." He considers Freudian concepts chiefly as products of phantasy.

Other collaborators are not as radical in their rejection of Freud, and Poetzl who has written an introduction to the book, while recognizing the importance of Stransky's "subordination authority relation," feels constrained to state that he, Poetzl, considers Freud's work as empirically proven. While Stransky does not agree with Poetzl in this respect, he also rejects Pavlov and Speransky's reflexological orientation. In his condemnation of Freud he is particularly extreme: "I would like to say that concerning this specific kind of psychopathization of our present society with all its consequences, the Freudian movement is not entirely guiltless. This movement and its derivatives in the English speaking world have given rise to a kind of slogan used by millions of laymen . . . nothing is more harmful than an undigested half-knowledge, particularly a half-knowledge which accepts theses as little founded as those of Freud and Adler as given facts."

A more moderate, thoroughly eclectic and thoroughly mature view concerning psychotherapy and its methods is presented in the chapter on 'psychotherapy and mental hygiene" by Hans Kogerer. While he denies the particular therapeutic efficacy of psychoanalysis his thinking is deeply influenced by Freud. He accepts Freud's findings concerning infantile sexuality, the importance of instincts and drives, but argues against the partition into conscious and unconscious and "its personification as ego and id." This as well as the concept of the ideal ego and super-ego Kogerer considers as metaphysical constructions of the antimetaphysician Freud. The antithesis of pleasure and reality principle he views in a similar light as a metaphysical construction. Next to Freud, Kogerer has been influenced most by Kretschmer, Jung, Adler, Frankl and Kronfeld. In the reviewer's opinion he has succeeded in integrating effectively the fundamentals of these various schools of psychotherapy. His chapter may be of particular interest to the general American psychiatric reader who is well acquainted with the Freudian but not with the other psychotherapeutic approaches.

In his chapter on "mental hygiene and crime," Stransky again stresses the hereditary constitutional point of view and states that in America the importance of the milieu has been overrated, although

he, himself, does not deny it. He feels that American pedagogics are too permissive and in this connection too stresses the "subordination authority relation" approach.

In other chapters the relationship of mental hygiene to physical hygiene, sociology and economics are being discussed. One is somewhat surprised to see which progressive steps in Austria, or at least in Vienna, have been taken. There is, for instance, routine mental hygiene counselling at the end of Highschool for healthy students (emphasis on prophylaxis). In Vienna there are special counselling centers for suicidal risks (Beratungsstellen fuer Lebensmuede).

The entire book is on a high level and reflects the European point of view on mental hygiene. That this point of view in many aspects is considerably different from ours makes the book particularly interesting and worthwhile reading. While one may not agree with all conclusions one can not fail to be impressed by the originality of many of the proposed points of view and by the thoroughness with which the entire field has been covered.

ALFRED GALLINEK, M. D.,
Columbia Presbyterian Medical Center,
New York City.

CRESTWOOD HEIGHTS: A STUDY OF THE CULTURE OF SUBURBAN LIFE. By *John R. Seeley, R. Alexander Sim, and Elizabeth W. Loosley.* (New York: Basic Books; and Toronto: Univ. of Toronto Press, 1956. $6.50.)

This book describes many aspects of life in Suburbia——a particular Suburbia, to be sure——but with features common to suburban (and in many ways urban uppermiddle class) society throughout North America. It is an important book for psychiatrists whose private clientele is drawn largely from this section of the population. In addition it has much to say that is relevant to the psychiatrists themselves, both as members of this social stratum and also as practitioners.

Since few psychiatrists, in all likelihood, will want to tackle such a thick book on a subject that may seem tangential to their main concerns, I would recommend that as many as possible read with care Part 3: Integration, and Part 4: Implication. Part 3 summarizes and sorts out the material of the preceding 300-plus pages. Part 4 raises problems that mental health experts of all kinds must face but that many of us are scarcely aware of.

These 2 sections are related to the rest of the book in the same way that a summary at a psychiatric case conference is related to the life history and details of clinical contacts with the patient. They are, in addition, very stimulating reading, particularly as they deal with the role and functioning of our professional fraternity. The views expressed may engender strong reactions for and against; they should certainly stir us into a greater awareness of our potentials and responsibilities to society.

DOROTHEA C. LEIGHTON, M. D.,
Trumansburg, N. Y.

JUDAISM AND PSYCHIATRY. Edited by *Simon Noveck.* (New York: The National Academy for Adult Jewish Studies, 1956. $2.50.)

This book is another welcome indicator of the rising tide of interest in religion and psychiatry. Five well known Rabbis and 10 competent psychiatrists have joined forces to provide us with a most useful and enlightening volume. Almost all of the papers were originally presented as informal talks to adult education classes of the Park Avenue Synagogue, and now appear under the skillful editorship of Rabbi Noveck in highly readable form. The purpose of the book as stated by the editor is "to present some of the teachings of the Jewish tradition on the basic emotional problems which confront us as human beings, and to analyze the psychological values which can come from following the Jewish way of life." To accomplish this the subjects of Conscience and Guilt, Fear and Anxiety, Depression, and Self-Acceptance are discussed from both the psychiatric and Jewish points of view. There are also excellent discussions on The Meaning of Personal Religious Experience, The Value of Ritual, and The Need to Belong, to mention only a few of the chapter headings. The final section is devoted to 3 statements (by one Rabbi and two psychiatrists) addressed to the question: "Can Judaism and psychiatry meet?"

Although the answer to the above question is in the affirmative, there remains for the authors a keen recognition of the essentially different and separate areas of the 2 fields, even though they may *appear* to overlap or demonstrate, at times, a superficial similarity. This is but one example of the spirit of common sense and intelligent appraisal which runs through the entire book.

Both Jew and non-Jew will enjoy the many pertinent quotations and examples from the Old Testament, Talmud, and other Jewish writings. There is an excellent bibliography which omits, for some inexplicable reason, any reference to Martin Buber, the great contemporary Jewish theologian who has contributed so importantly to this very subject. This book can be safely recommended to any person, lay or professional, who wishes to understand some of the fundamental precepts of the Jewish faith, and how they relate to the emotional problems of everyday living.

ZIGMOND M. LEBENSOHN, M. D.,
Washington, D.C.

HOW TO IMPROVE YOUR MIND. By *Baruch Spinoza,* with Biographical Notes by *Dagobert D. Runes.* (New York: Wisdom Library (Philosophical Library) 1956. $.95, Soft Binding.)

This 90-page text is a translation from the Latin, *De Intellectus Emendatione,* by R. H. M. Elwes. From the mid-twentieth century standpoint the title is deceptive. The book is not a psychiatric self-help potboiler of the type with which we are all too familiar. The contemporary social climate is rather curious, probably different from anything before experienced. An unfortunate side-effect of the zeal of our fraternity to educate the public is to make

many a sensitive brother or sister morbidly mind-conscious. Such persons function better and more comfortably as little aware as possible of their physiology, whether of mind or body. But we do not allow them to be unaware. Through a flood of books and other means of communication we spread before them an assortment of nervous symptoms they are liable to; then if the innoculation "takes," it is of course necessary to write more books full of antidotes. We increase the demand and then the supply.

Spinoza's text is not that kind of book. Spinoza is a philosopher and he writes like one, with frequent references to his profounder and more detailed books. His method is what he calls pure reason by which the relativeness of qualities is appreciated. Thus in nature nothing is that must be either one thing or the other, *i.e.*, either good or bad. It becomes such only in relation to the self. One must therefore strive to know as much about nature, all of nature, as possible, thus acquiring knowledge of God, for God and nature are one and the same. Man thus attains to an *amor dei intellectualis* free of all emotional involvement.

Spinoza, the philosopher, using the language of his *metier*, addresses himself in as simple terms as possible to those, nevertheless, who are able to assimilate his canons of logical thinking. Obviously he is not speaking to those not so endowed; and, like Kant, he assumes the existence of this something called "pure reason."

He found that the goals that the multitude commonly seeks are riches, fame, and pleasures of the senses; and he apprehended these as unworthy and unsatisfactory goals; he must find something beyond and above all these, nothing less indeed than "the knowledge of the union existing between the mind and the whole of nature." Attaining such knowledge he must help others to attain it also. That was his purpose in writing this book, and its value lies in letting us look in upon the mind of this great man at work. He was only 26 years old when he wrote it.

C. B. F.

NEW GERMAN PSYCHIATRICA AND PSYCHOLOGICA

HANS A. ILLING, Los Angeles, Cal.

Tiefenpsychologie. Depth-Psychology. By *Friedrich Seifert.* (Dusseldorf and Koeln: Eugen Diederichs Verlag, 1955. DM 15.80.)

Tiefenspychologie is a postwar coinage in the German-speaking countries. Among the best of a flood of new titles is this one with the subtitle, *Die Entwicklung der Lehre vom Unbewussten.* Significantly for American readers, Seifert divides the science into a "magnetic field" of the theories of Freud and Adler in one part and a "magnetic field of ideas" of Jung in another, both parts being quite equal in extent. So far as the part on Jung is concerned, this is probably the best integration and interpretation to be found in any domestic or foreign work, even though Seifert seems to incline toward Jung, since in Germany much tiefenpsychologie rests on mythology, alchemy, religion, and parapsychology. In the part on Freud, particularly in the chapter on "Psychoanalytische Neurosenlehre," Seifert stresses the origins of Freud's psychoanalysis, including sociological, cultural, historical, and even religious factors, but omits medical factors, an approach hardly shared by most American analysts.

Gesetze und Sinn des Traeumens. By *K. Leonhard.* (Stuttgart: Georg Thieme, 1955. DM 11.70.)

In this more specialized monograph on tiefenpsychologie, medical psychologist Leonhard makes the claim that most psychotherapists in Germany reject Freud's as well as Jung's theories (the former basing his interpretations of dreams on sexual symbols, the latter on collective archetypes) and that "one could agree with one or the other or with neither." (A claim which, in this reviewer's opinion, the author himself inconsistently refutes in his own "theories," since one would have to "agree" with him.) Interpretation of dreams, in Leonhard's opinion, is to be avoided, since dreams contain "unconscious powers, which complement the achievements of the conscious in harmonious cooperation."

Phantasie. By *Karl Heymann.* (Basle: S. Karger, 1956. S.frs. 9.35.)

Infantilismus. (Basle: S. Karger, 1955. S.frs. 20.80.)

The first monograph deals with the phantasy and its various implications for social hygiene, education, the arts, and politicai science. The author is an educational psychologist, and his book is one of a large series of monographs devoted largely to education and child welfare. The author believes that phantasy is a phenomenon that one has to deal with clinically and as an observer. Only when the researcher picks up the single pieces can he understand the whole idea of the phantasy as an extra- rather than intrapsychic phenomenon in our emotional life.

In the second monograph published by the same author, a number of savants have participated, half of them of the medical-psychiatric discipline. Differing from our American type of research, in Europe it is the medical profession that pioneers in projective tests, particularly the Rorschach (since Rorschach was a psychiatrist), whereas our psychiatrists seem to have a hands-off attitude. The infantile individual gets in this volume a thorough treatment and is studied as a soldier, in vocational counseling, with first graders in elementary schools, mental defectives, and delinquents.

Wille und Leistung. By *Karl Mierke.* (Goettingen: Verlag fuer Psychologie, Dr. C. J. Hogrefe, 1955. DM 28.60.)

Here an attempt is made on the basis of experiments to arrive at conclusions as to the interrelationships between the methods of experimental psychology and those of psychodiagnostics, as well as between comparative and the *verstehende* (comprehending) psychology. Analyzed and illustrated are a series of concepts of "achievements," such as work and achievement, capacity of achievement, drive for achievement, trend of determination and Gestalt, and a host of others.

Mysterium Coniunctionis. Vols. I and II. By *C. G. Jung.* (Zurich: Rascher Verlag, 1955, S.frs. 12; and 1956, S.frs. 16.)

Jung's latest opus appears in two volumes, the third and final one having been announced for early 1957. The first volume contains Chapters I through III, the second volume Chapters IV through VI. Jung's theory of the archetypes seems to have been worked out to the finest detail and is based on the alchemists' many-sided symbols. For instance, Chapter V deals with Adam and Eve, the various sources of biblical and scholarly origins, such as the Kabbala, interpretation of names, etc. For the student of Jung these three volumes will probably constitute the Master's swan-song and be an absolute "Must"; for the researcher, however, they will mark the zenith of philological scholarship.

Erfahrungen mit Gruppenpsychotherapie. By *Adolf Guggenbuehl-Craig.* (Basle: S. Karger, 1956. S.fr. 8.—.)

The author gives his readers a report of his visit to, and internship in, the Nebraska Psychiatric Institute, where be observed, studied, and practiced group psychotherapy in 1955. This little monograph is one of the best of its kind and demonstrates how much can be stated in a small space and yet avoid the pitfall of oversimplification. To be sure, much material, historical, clinical, methodological, is missing. But the brief bibliography, consisting of 31 references, all Anglo-Saxon material, contains perhaps the essence of group-therapy literature.

Kritik der Psychosomatik. By *Hans Joerg Weitbrecht.* (Stuttgart: Georg Thieme, 1955. DM 12.)

Die Krankheit nicht Krank Sein zu Koennen. By *Hans Mueller-Eckhard.* (Stuttgart: Ernst Klett Verlag, 1955. DM 12.)

These two major publications emphasize the polarity of opinion in German-speaking countries today concerning psychosomatics. Strangely enough, it is the medical writer Weitbrecht who appears to be opposed to "those analysts and psychiatrists" who strive toward tiefenpsychologie and who modify Freud's theory of the neuroses into a "universal anthropology." He quotes particularly Franz Alexander as one of the principal protagonists of how "psychosomatics may be applied to every phenomenon which exists within the living organism." This, the author feels, is a "materialistic monism," which is the antithesis of the "idealistic spiritualism" mainly represented by the German psychosomatic practitioners.

In contrast to Weitbrecht, Mueller-Eckhard advocates not only spirituality, which he feels psychiatrists, including the German, do not have, but also a movement back from the physio-chemical point of view of "neuropsychiatry," and the push-button treatment of a patient who needs more than that. In fact, he claims that it is the psychiatrists who have contributed to, and have increased, the incidence of mental illness, at least in German-speaking countries. In many instances, as in shock therapy, the author has found confirmation in many medical sources both in Germany and in this country. At the same time, his book, one of the best-written in psychiatry, cannot escape oversimplification and general statements which are simply not correct. Nevertheless, reports which have reached this reviewer indicate that this book, published less than a year ago, has already sold more than 100,000 copies, is advertised in medical journals (outside of neurology and psychiatry) and seems to have done tremendous damage, thanks to psychiatrists themselves.

Psychogene Erkrankungen bei Kindern und Jungenlichen. By *Annemarie Duehrssen.* (Goettingen: Verlag fuer Medizinsche Psychologie, 1955. DM 18.)

The author, co-editor of the *Zeitschrift fuer Psycho-Somatische Medizin,* and a child psychiatrist, writes in a neo-analytical fashion, being a student of Harald Schultz-Hencke. However, she wishes the reader to know that Freud's theory on childhood neuroses, whether psychosomatically conditioned or not, was developed further by Adler and Kuenkel. She speaks as a medical psychologist and wishes to avoid "interdisciplinary difficulties" in writing her text, even though she seems to be aware that there may be more nonmedical than medical practitioners of various disciplines engaged in child psychology. There are few books like hers that blend harmoniously the physiological and psychological aspects of child development from infancy to adolescence.

Kinderpsychotherapie in Nicht-Direktivem Verfahren. By *Reinhard and Anne-Marie Tausch.* (Goettingen: Verlag fuer Psychologie, Dr. C. J. Hogrefe, 1956. DM 8.60.)

This book by two educational psychologists is unique in German literature, insofar as it is probably the first dealing with Rogerian nondirective psychology, translated into German phraseology, methodology, and setting. The volume is based almost entirely on Rogers and Axline; it is listed here because of its uniqueness and novelty, since American readers can be considered as largely familiar with this school of psychology.

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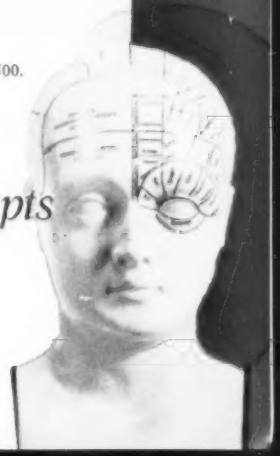

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*Ferguson, J. T., and Linn, F. V. Z.: Antibiotic Med. & Clin. Therapy *3*:329, 1956.

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